# Domeſtic Medicine:

OR, A

TREATISE

ON THE

PREVENTION AND CURE

OF

DISEASES,

*BY REGIMEN AND SIMPLE MEDICINES:*

WITH

AN APPENDIX,

CONTAINING A DISPENSATORY FOR THE USE OF PRIVATE PRACTITIONERS.

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Adapted to the Climate and Diſeaſes of America, by
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# PREFACE.

AMONG the motives which have induced me to republiſh Dr. BUCHAN's book on DOMESTIC MEDICINE, is that of rendering it more extenſively uſeful to the inhabitants of the United States of America, by accommodating it to their diſeaſes. Although it contains a comprehenſive deſcription of the diſeaſes incident to the nations of Europe, and is too well known by its celebrity to the world, to require any encomium from me, yet the variety to which diſeaſes are ſubject from climate, makes it ſomewhat deficient when applied to thoſe of America: To ſupply that defect is the object of this publication. How far I have ſucceeded in the accompliſhment of my deſign, muſt be decided by the candour of the public, to whoſe judgment it is now with diffidence ſubmitted, without any farther apology than a conciouſneſs of meaning well, and a deſire of ſoliciting that portion of indulgence, which is due to every attempt to promote the good of mankind.

*ISAAC CATHRALL.*

Philadelphia, Auguſt 20, 1797.

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# ADVERTISEMENT.

SIXTEEN years have elapſed, ſince the firſt edition of this book appeared. During that period, the author has taken occaſion to improve ſeveral articles, inſerted in the more early impreſſions. For this he has been cenſured; but it would be unpardonable in the writer, to ſuffer an error in a book, on which health and life may depend, to ſtand uncorrected; or, to perceive an omiſſion, and leave it unſupplied. His improvements are not the reſult of mercenary views. The ſame principle which prompted him to write the book, will ever induce him to improve it, to the utmoſt of his power.

The author regrets, that the limits of one volume preclude many intereſting obſervations, and likewiſe deprive him of the pleaſure of inſerting a number of very uſeful remarks, made by doctor DUPLANIL, of Paris, who publiſhed an elegant tranſlation of this work, in five volumes octavo, with a commentary.

The improvements of the later editions are chiefly inſerted in the form of notes. Theſe are intended either to illuſtrate the text, or to put people on their guard in dangerous ſituations, and prevent fatal miſtakes in the practice of medicine.

Although the DOMESTIC MEDICINE was never intended to ſupercede the uſe of a phyſician, but to ſupply his place in ſituations where medical aſſiſtance could not eaſily be obtained; yet the author is ſorry to obſerve, that the jealouſies and fears of the faculty, have prompted many of them to treat this work, in a manner unbecoming the profeſſors of liberal ſcience: notwithſtanding their injurious treatment, he is determined to perſiſt in his plan, being fully convinced of its utility; nor ſhall intereſt, or prejudice, ever deter him from exerting his beſt endeavours *to render the medical art more extenſively beneficial to* MANKIND.

But this treatment of the faculty, is not the only thing of which the author has cauſe to complain. By ſome of them his book has been ſerved up mangled and mutilated, and its title, type, ſize, &c. ſo cloſely imitated, that purchaſers are miſled, and frequently buy theſe ſpurious productions inſtead of the real one. That a needy author, incapable himſelf of producing an original work, ſhould prey upon another, is a thing not at all to be wondered at: but that all this can be done with impunity, ſhews, that the laws of this country, reſpecting literary property, are ſtill in a very imperfect ſtate.

LONDON,
Nov. 10, 1785.

# PREFACE.

WHEN I first signified my intention of publishing the following sheets, I was told by my friends, that it would draw on me the resentment of the whole faculty. I resolved to make the experiment; which came out as might have been expected. Many whose learning and liberality of sentiments do honour to medicine, received the book with indulgence, and the falsity of the opinion, *that every physician wishes to conceal his art;* while the selfish and narrow-minded, persecute both the book and its author, shewed the reception, however, which this work has met with from the public, merits my most grateful acknowledgments. As the best way of expressing these, I have endeavoured to render it more generally useful, by enlarging that part which treats of preventing diseases; and by adding many articles which had been entirely omitted in the former impressions. It is needless to enumerate these additions: I hope that they will be found real improvements.

This was so apparent, as, with me, to amount to a proof of the following melancholy fact: That almost one half of the human species perish in infancy, by improper management or neglect. No one, who has not had an opportunity of observing them, can imagine what absurd and ridiculous practices still prevail in the nursing and management of infants, and what numbers of lives are by that means lost to society. As these practices are chiefly owing to ignorance, it is to be hoped that when nurses are better informed, their conduct will be very different.

The observations relative to nursing and the management of children, were chiefly suggested by an extensive practice among infants, in a large branch of the Foundling Hospital, where I had an opportunity not only of treating the diseases incident to childhood, but likewise of trying different plans of nursing, and of observing their effects. Whenever I had it in my power to place the children under the care of proper nurses, to instruct these nurses in their duty, and to be satisfied that they perform it, very few of them died; but when, from distance of place, and other unavoidable circumstances, the children were left to the sole care of mercenary nurses, without any person to instruct or superintend them, scarce any of them lived.

The application of medicine to the various occupations of life, has been, in general, the result of observation. An extensive practice for several years, in one of the largest manufacturing towns in England, afforded me sufficient opportunities of observing the injuries which those useful people sustain from their particular employments, and likewise of trying various methods of obviating

ſuch injuries. The ſucceſs which attended theſe trials was ſufficient to encourage this attempt, which, I hope, will be of uſe to thoſe who are under the neceſſity of earning their bread by ſuch employments as are unfavourable to health.

I do not mean to intimidate men, far leſs to inſinuate that even thoſe arts, the practice of which is attended with ſome degree of danger, ſhould not be carried on; but to guard the leſs cautious and unwary againſt thoſe dangers which they have it in their power to avoid, and which they often, through mere ignorance, incur. As every occupation in life, diſpoſes thoſe who follow it, to ſome particular diſeaſes more than to others, it is of importance to know theſe, that people may guard againſt them. It is better to be warned of the approach of an enemy, than to be ſurpriſed by him.

The obſervations concerning diet, air, exerciſe, &c. are of a more general nature, and have not eſcaped the attention of phyſicians in any age. They are ſubjects of too great importance, however, to be paſſed over in an attempt of this kind, and can never be ſufficiently recommended. The man who pays a proper attention to theſe, will ſeldom need the phyſician; and he who does not, will ſeldom enjoy health, let him employ as many phyſicians as he pleaſes.

Though I have endeavoured to point out the cauſes of diſeaſes, and to put people upon their guard againſt them, yet they are often of ſuch a nature, as to be removed only by the diligence and activity of the public magiſtrate. I am ſorry, indeed, to obſerve, that the power of the magiſtrate is ſeldom exerted in this country for the preſervation of health. The importance of a proper medical police is either not underſtood, or little regarded. Many things highly injurious to the public health are daily practiſed with impunity, while others, abſolutely neceſſary for its preſervation, are entirely neglected.

Some of the public means of preſerving health are mentioned in the general prophylaxis, as the inſpection of proviſions, widening the ſtreets of great towns, keeping them clean, ſupplying the inhabitants with wholeſome water, &c.; but they are paſſed over in a very curſory manner. A proper attention to theſe, would have ſwelled this volume to too large a ſize; I have therefore reſerved them for the ſubject of a future publication.

In the treatment of diſeaſes, I have been peculiarly attentive to regimen. The generality of people lay too much ſtreſs upon medicine, and truſt too little to their own endeavours. It is always in the power of the patient, or of thoſe about him, to do as much towards his recovery as can be effected by the phyſician. By not attending to this, the deſigns of medicine are often fruſtrated; and the patient, by purſuing a wrong plan of regimen, not only defeats the doctor's endeavours, but renders them dangerous. I have often known patients killed by an error in regimen, when

they were using very proper medicines. It will be said, the physician always orders the regimen when he prescribes a medicine. I wish it were so, both for the honour of the faculty and the safety of their patients: but physicians, as well as other people, are too little attentive to this matter.

Though many reckon it doubtful whether medicines are more beneficial or hurtful to mankind, yet all allow the necessity and importance of a proper regimen in diseases. Indeed, the very appetites of the sick prove its propriety. No man in his senses ever imagined that a person in a fever, for example, could eat, drink, or conduct himself in the same manner as one in perfect health. This part of medicine, therefore, is evidently founded in nature, and is consistent with reason and common sense. Had men been more attentive to it, and less solicitous in hunting after secret remedies, medicine had never become an object of ridicule.

Indeed, this seems to have been the first idea of medicine. The ancient physicians acted chiefly in the capacity of nurses. They went very little beyond aliment in their prescriptions; and even this they generally administered themselves, attending the sick, for that purpose, through the whole course of the disease; which gave them an opportunity not only of marking the changes of diseases with great accuracy, but likewise of observing the effects of their different applications, and adapting them to the symptoms.

Dr. Arbuthnot asserts, that by a proper attention to those things, which are almost within the reach of every body, more good and less mischief will be done in acute diseases, than by medicines improperly and unseasonably administered; and that great cures may be effected in chronical distempers, by a proper regimen of the diet only. So entirely do the doctor's sentiments and mine agree, that I would advise every person, ignorant of physic, to confine his practice solely to diet, and the other parts of regimen; by which means he may often do much good, and can seldom do any hurt.

This seems also to have been the opinion of Dr. Huxham, who observes, that we often seek from art what all-bountiful nature most readily, and as effectually, offers us, had we diligence and sagacity enough to observe and make use of them; that the *dietetic* part of medicine is not so much studied as it ought to be; and that, though less pompous, yet it is the most natural method of curing diseases.

To render the book more generally useful, however, as well as more acceptable to the intelligent part of mankind, I have, in most diseases, besides regimen, recommended some of the most simple and approved forms of medicine, and added such cautions and directions as seemed necessary for their safe administration. It would no doubt have been more acceptable to many, had it abounded with pompous prescriptions, and promised great cures in consequence of their use; but this was not my plan: I think the administration of medicines always doubtful, and often dangerous,

and would much rather teach men how to avoid the neceſſity of uſing them, than how they ſhould be uſed.

Several medicines, and thoſe of conſiderable efficacy, may be adminiſtered with great freedom and ſafety. Phyſicians generally trifle a long time with medicines before they learn their proper uſe. Many peaſants at preſent know better how to uſe ſome of the moſt important articles in the *materia medica*, than phyſicians did a century ago; and doubtleſs the ſame obſervation will hold with regard to others ſome time hence. Wherever I was convinced that medicine might be uſed with ſafety, or where the cure depended chiefly upon it, I have taken care to recommend it; but where it was either highly dangerous, or not very neceſſary, it is omitted.

I have not troubled the reader with an uſeleſs parade of quotations from different authors; but have, in general, adopted their obſervations where my own were either defective, or totally wanting. Thoſe to whom I am moſt obliged are, Ramazini, Arbuthnot, and Tiſſot; the laſt of which, in his *Avis au Peuple*, comes the neareſt to my views of any author which I have ſeen. Had his plan been as complete as the execution is maſterly, we ſhould have had no occaſion for any new treatiſe of this kind ſoon; but by confining himſelf to the acute diſeaſes, he has, in my opinion, omitted the moſt uſeful part of his ſubject. People in acute diſeaſes may ſometimes be their own phyſicians; but in the chronic, the cure muſt ever depend chiefly upon the patient's own endeavours. The doctor has alſo paſſed over the *Prophlyaxis*, or preventive part of medicine, very ſlightly, though it is certainly of the greateſt importance in ſuch a work.

Several other foreign phyſicians of eminence, have written on nearly the ſame plan with Tiſſot, as the baron Van Swieten, phyſician to their imperial mageſties, M. Roſen, firſt phyſician of the kingdom of Sweden, &c.; but their productions have never come to my hand. I wiſh that ſome of our diſtinguiſhed countrymen would follow their example. There ſtill remains much to be done on this ſubject, and no man could better employ his time or talents than in eradicating hurtful prejudices, and diffuſing uſeful knowledge among the people.

Some of the faculty diſapprove every attempt of this nature, imagining that it muſt deſtroy their influence. But this notion appears to me to be as abſurd as it is illiberal. People in diſtreſs will always apply for relief to men of ſuperior abilities, when they have it in their power; and they will do this with far greater confidence and readineſs, when they believe that medicine is a rational ſcience, than when they take it to be only a matter of mere conjecture.

Though I have endeavoured to render this treatiſe plain and uſeful, yet I found it impoſſible to avoid ſome terms of art; but thoſe are, in general, either explained, or are ſuch as moſt people un-

derſtand. In ſhort, I have endeavoured to conform my ſtile to the capacities of mankind in general; and, if my readers do not flatter either themſelves or me, with ſome degree of ſucceſs. On a medical ſubject, this is not ſo eaſy a matter as ſome may imagine. To make a ſhow of learning, is eaſier than to write plain ſenſe, eſpecially in a ſcience, which has been kept at ſuch a diſtance from common obſervation. It would, however, be no difficult matter to prove, that every thing valuable in the practical part of medicine, is within the reach of common abilities.

It would be ungenerous not to expreſs my warmeſt acknowledgments to thoſe gentlemen, who have endeavoured to extend the uſefulneſs of this performance, by tranſlating it into the language of their reſpective countries. Moſt of them have not only given elegant tranſlations of the book, but have alſo enriched it with many uſeful obſervations; by which it is rendered more complete, and better adapted to the climate and the conſtitutions of their countrymen. To doctor Duplanil of Paris, phyſician to the count d'Artois, I lie under particular obligations; as this gentleman has not only conſiderably enlarged my treatiſe; but, by his very ingenious and uſeful notes, has rendered it ſo popular on the continent, as to occaſion its being tranſlated into all the languages of modern Europe.

The book has not more exceeded my expectations in its ſucceſs, than in the effects it has produced. Some of the moſt pernicious practices, with regard to the treatment of the ſick, have already given place to a more rational conduct; and many of the moſt hurtful prejudices, which ſeemed to be quite inſurmountable, have, in a great meaſure, yielded to better information. Of this, a ſtronger inſtance cannot be given, than the inoculation of the ſmall-pox. Few mothers, ſome years ago, would ſubmit to have their children inoculated, even by the hand of a phyſician; yet nothing is more certain, than that of late, many of them have performed this operation with their own hands; and as their ſucceſs has been equal to that of the moſt dignified inoculators, there is little reaſon to doubt that the practice will become general. Whenever this ſhall be the caſe, more lives will be ſaved by inoculation alone, than are at preſent by all the endeavours of the faculty.

# INTRODUCTION.

THE improvements in medicine, ſince the revival of learning, have not kept pace with thoſe of the other arts. The reaſon is obvious. Medicine has been ſtudied by few, except thoſe who intended to live by it as a trade. Such, either from a miſtaken zeal for the honor of medicine, or to raiſe their own importance, have endeavoured to diſguiſe and conceal the art. Medical authors have generally written in a foreign language; and thoſe who were unequal to this taſk, have even valued themſelves upon couching, at leaſt, their preſcriptions, in terms and characters, unintelligible to the reſt of mankind.

The contentions of the clergy, which happened ſoon after the reſtoration of learning, engaged the attention of mankind, and paved the way for that freedom of thought and enquiry, which has ſince prevailed in moſt parts of Europe, as to religious matters. Every man took a ſide in thoſe bloody diſputes; and every gentleman, that he might diſtinguiſh himſelf on one ſide or other, was inſtructed in divinity. This taught people to think and reaſon for themſelves in matters of religion, and at laſt deſtroyed that complete and abſolute dominion, which the clergy had obtained over the minds of men.

The ſtudy of law has likewiſe, in the moſt civilized nations, been juſtly deemed the neceſſary part of the education of a gentleman. Every gentleman ought certainly to know at leaſt the laws of his own country: And, if he were alſo acquainted with thoſe of others, it might be more than barely an ornament to him.

The different branches of philoſophy have alſo of late been univerſally ſtudied by all who pretended to a liberal education. The advantages of this are manifeſt. It frees the mind from prejudice and ſuperſtition; fits it for the inveſtigation of truth; induces habits of reaſoning and judging properly; opens an inexhauſtible ſource of entertainment; paves the way to the improvement of arts and agriculture; and qualifies men for acting with propriety in the moſt important ſtations of life.

Natural Hiſtory is likewiſe become an object of general attention. And it well deſerves to be ſo. It leads to diſcoveries of the greateſt importance. Indeed, agriculture, the moſt uſeful of all arts, is only a branch of natural hiſtory, and can never arrive at a high degree of improvement, where the ſtudy of that ſcience is neglected.

Medicine, however, has not been reckoned a neceſſary part of the education of a gentleman. No ſufficient reaſon can be aſſigned for this omiſſion. No ſcience lays open a more extenſive field of uſeful

knowledge, or affords more ample entertainment to an inquisitive mind. Anatomy, Botany, Chemistry, and the Materia Medica, are all branches of natural history, and are fraught with such amusement and utility, that the man who entirely neglects them, has but a sorry claim, either to taste or learning. If a gentleman has a turn for observation, says an elegant and sensible writer*, surely the natural history of his own species is a more interesting subject, and presents a more ample field for the exertion of genius, than the natural history of spiders and cockle-shells.

We do not mean that every man should become a physician. This would be an attempt as ridiculous as it is impossible. All we plead for, is, that men of sense and learning, should be so far acquainted with the general principles of medicine, as to be in a condition to derive from it some of those advantages with which it is fraught; and at the same time to guard themselves against the destructive influences of Ignorance, Superstition, and Quackery.

As matters stand at present, it is easier to cheat a man out of his life than of a shilling, and almost impossible either to detect or punish the offender. Nothwithstanding this, people will shut their eyes, and take every thing upon trust that is administered by any pretender to medicine, without daring to ask him a reason for any part of his conduct. Implicit faith, every where else the object of ridicule, is still sacred here. Many of the faculty are, no doubt, worthy of all the confidence that can be reposed in them; but as this can never be the character of every individual in any profession, it would certainly be for the safety, as well as the honour of mankind, to have some check upon the conduct of those to whom they intrust so valuable a treasure as health.

The veil of mystery, which still hangs over medicine, renders it not only a conjectural, but even a suspicious art. This has been long ago removed from the other sciences, which induces many to believe that medicine is a mere trick, and that it will not bear a fair and candid examination. Medicine, however, needs only to be better known, in order to secure the general esteem of mankind. Its precepts are such, as every wise man would chuse to observe, and it forbids nothing, but what is incompatible with true happiness.

Disguising medicine, not only retards its improvement as a science, but exposes the profession to ridicule, and is injurious to the true interests of society. An art founded on observation never can arrive at any high degree of improvement, while it is confined to a few who make a trade of it. The united observations of all the ingenious and sensible part of mankind, would do more in a few years towards the improvement of medicine, than those of the faculty alone in a great many. Any man can tell when a medicine gives him ease, as well as a physician; and if he only knows the name and dose of the medicine, and the name of the disease, it is

* Observations on the duties and offices of a physician.

ſufficient to perpetuate the fact. Yet the man who adds one ſingle fact to the ſtock of medical obſervations, does more real ſervice to the art, than he who writes a volume in ſupport of ſome favourite hypotheſis.

Very few of the valuable diſcoveries in medicine have been made by phyſicians. They have, in general, either been the effect of chance or of neceſſity, and have been uſually oppoſed by the faculty, till every one elſe was convinced of their importance. An implicit faith in the opinions of teachers, an attachment to ſyſtems and eſtabliſhed forms, and the dread of reflexions, will always operate upon thoſe who follow medicine as a trade. Few improvements are to be expected from a man who might ruin his character and family by even the ſmalleſt deviation from an eſtabliſhed rule.

If men of letters, ſays the author of the performance quoted above, were to claim their right of enquiry into a matter that ſo nearly concerns them, the good effects on medicine would ſoon appear. Such men would have no ſeparate intereſt from that of the art. They would detect and expoſe aſſuming ignorance under the maſk of gravity and importance, and would be the judges and patrons of modeſt merit. Not having their underſtandings perverted in their youth by falſe theories, unawed by authority, and unbiaſſed by intereſt, they would canvaſs with freedom the moſt univerſally received principles in medicine, and expoſe the uncertainty of many of thoſe doctrines, of which a phyſician dares not ſo much as ſeem to doubt.

No argument, continues he, can be brought againſt laying open medicine, which does not apply with equal, if not greater force, to religion; yet experience has ſhown, that, ſince the laity have aſſerted their right of enquiry into theſe ſubjects, theology, conſidered as a ſcience, has been improved, the intereſts of real religion have been promoted, and the clergy have become a more learned, a more uſeful, and a more reſpectable body of men, than they ever were in the days of their greateſt power and ſplendour.

Had other medical writers been as honeſt as this gentleman, the art had been upon a very different footing at this day. Moſt of them extol the merit of thoſe men, who brought philoſophy out of the ſchools, and ſubjected it to the rools of common ſenſe. But they never conſider that medicine, at preſent, is in nearly the ſame ſituation as philoſophy was in at that time, and that it might be as much improved by being treated in the ſame manner. Indeed, no ſcience can either be rendered rational or uſeful, without being ſubmitted to the common ſenſe and reaſon of mankind. Theſe alone ſtamp a value upon ſcience; and what will not bear the teſt of theſe, ought to be rejected.

It will be ſaid, that diffuſing medical knowledge among the people, might induce them to tamper with medicine, and to truſt to their own ſkill inſtead of calling a phyſician. The reverſe of this is true. Perſons who have moſt knowledge in theſe matters are

commonly moſt ready both to aſk and to follow advice, when it is neceſſary. The ignorant are always moſt apt to tamper with medicine, and have the leaſt confidence in phyſicians. Inſtances of this are daily to be met with among the ignorant peaſants, who, while they abſolutely refuſe to take a medicine which has been preſcribed by a phyſician, will ſwallow, with greedineſs, any thing that is recommended to them by their credulous neighbours. Where men will act even with knowledge, it is certainly more rational to afford them all the light we can, than to leave them entirely in the dark.

It may alſo be alleged, that laying medicine more open to mankind would leſſen their faith in it. This would indeed be the caſe with regard to ſome; but it would have a quite contrary effect upon others. Many people who have the utmoſt dread and horror of every thing preſcribed by a phyſician, will readily take a medicine which they know, and whoſe qualities they are in ſome meaſure acquainted with. Hence it is evident, that the dread ariſes from the doctor, not from the drug. Nothing ever can or will inſpire mankind with an abſolute confidence in phyſicians, but an open, frank, and undiſguiſed behaviour. While the leaſt ſhadow of myſtery remains in the conduct of the faculty, doubts, jealouſies, and ſuſpicions, will ariſe in the minds of men.

Caſes will ſometimes occur, where a prudent phyſician may find it expedient to diſguiſe a medicine. The whims and humours of men muſt be regarded by thoſe who mean to do them ſervice; but this can never affect the general argument in favour of candour and openneſs. A man might as well allege, becauſe there are knaves and fools in the world, that he ought to take every one he meets for ſuch, and to treat him accordingly. A ſenſible phyſician will always know where diſguiſe is neceſſary; but it ought never to appear on the face of his general conduct.

The appearance of myſtery in the conduct of phyſicians not only renders their art ſuſpicious, but lays the foundations of quackery. No two characters can be more different than that of the honeſt phyſician and the quack; yet they have been much confounded. The line betwixt them is not ſufficiently apparent; at leaſt it is too fine for the general eye. Few perſons are able to diſtinguiſh ſufficiently between the conduct of that man who adminiſters a ſecret medicine, and him who writes a preſcription in myſtical characters and in an unknown tongue. Thus the conduct of the honeſt phyſician, which needs no diſguiſe, gives a ſanction to that of the villain, whoſe whole conſequence depends upon ſecrecy.

No laws will ever be able to prevent quackery, while people believe that the quack is as honeſt a man, and as well qualified, as the phyſician. A very ſmall degree of medical knowledge, however, would be ſufficient to break this ſpell; and nothing elſe can effectually undeceive them. It is the ignorance and credulity of the multitude, with regard to medicine, which render them ſuch an

eaſy prey to every one, who has the hardineſs to attack them on this quarter. Nor can the evil be remedied by any other means but making them wiſer.

The moſt effectual way to deſtroy quackery in any art or ſcience, is to diffuſe the knowledge of it among mankind. Did phyſicians write their preſcriptions in the common language of the country, and explain their intentions to the patient, as far as he could underſtand them, it would enable him to know when the medicine had the deſired effect; would inſpire him with confidence in the phyſician; and make him dread and deteſt every man who pretended to cram a ſecret-medicine down his throat.

Men, in the different ſtates of ſociety, have very different views of the ſame object. Some time ago it was the practice of this country, for every perſon to ſay his prayers in Latin, whether he knew any thing of that language or not. This conduct, though ſacred in the eyes of our anceſtors, appears ridiculous enough to us; and ſome parts of ours will ſeem as ſtrange to poſterity. Among theſe, we may reckon the preſent mode of medical preſcription, which will ſome time hence appear to have been completely ridiculous, and a very high burleſque upon the common ſenſe of mankind.

But this practice is not only ridiculous; it is likewiſe dangerous. However capable phyſicians may be of writing Latin, apothecaries are not always in a condition to read it, and dangerous miſtakes, in conſequence of this, often happen. But ſuppoſe the apothecary ever ſo able to read the phyſician's preſcription, he is generally otherwiſe employed, and the buſineſs of making up preſcriptions is left entirely to the apprentice. By this means, the greateſt man in the kingdom, even when he employs a firſt-rate phyſician, in reality truſts his life in the hands of an idle boy, who has not only the chance of being very ignorant, but likewiſe giddy and careleſs. Miſtakes will ſometimes happen in ſpite of the greateſt care; but, where human lives are concerned, all poſſible methods ought certainly to be taken to prevent them. For this reaſon, the preſcriptions of phyſicians, inſtead of being couched in myſtical characters, and a foreign language, ought, in my humble opinion, to be conceived in the moſt plain and obvious terms imaginable.

Diffuſing medical knowledge among the people, would not only tend to improve the art, and to baniſh quackery, but likewiſe to render medicine more univerſally uſeful. However long medicine may have been known as a ſcience, many of its moſt important purpoſes to ſociety have either been overlooked, or very little attended to. The cure of diſeaſes is a matter of great importance; but the preſervation of health is ſtill greater. This is the concern of every man, and ſurely what relates to it, ought to be rendered as plain and obvious to all as poſſible. Men cannot be ſufficiently on their guard againſt diſeaſes, who are totally ignorant of their cauſes. Nor can the legiſlature, in whoſe power it is to do much more for preſerving the public health, than can ever be done by the faculty

exert that power with propriety, and to the greateſt advantage, without ſome degree of medical knowledge.

Indeed, men of every occupation and condition in life, might avail themſelves of a degree of medical knowledge; as it would teach them to avoid the dangers peculiar to their reſpective ſtations; which is always eaſier than to remove their effects. Medical knowledge, inſtead of being a check upon the enjoyments of life, only teaches men how to make the moſt of them. It has indeed been ſaid, that to live medically, is to live miſerably: But it might with equal propriety be ſaid, that to live rationally, is to live miſerably. If phyſicians obtrude their own ridiculous whims upon mankind, or lay down rules inconſiſtent with reaſon or common ſenſe, they will be deſpiſed. But this is not the fault of medicine. It propoſes no rules, but ſuch as are perfectly conſiſtent with the true enjoyment of life, and conducive to the real happineſs of mankind.

Medicine has hitherto hardly been conſidered as a popular ſcience, but as a branch of knowledge ſolely confined to a particular ſet of men, while all the reſt have been taught, not only to neglect, but even to dread and deſpiſe it. But it will appear, upon a more ſtrict examination, that no ſcience better deſerves their attention, or is more capable of being rendered generally uſeful.

People are told, that if they dip the leaſt into medical knowledge, it will render them fanciful, and make them believe they have got every diſeaſe of which they read. This, I am ſatisfied, will ſeldom be the caſe with ſenſible people: and, ſuppoſe it were, they muſt ſoon be undeceived. A ſhort time will ſhow their error, and a little more reading will infallibly correct it. A ſingle inſtance will ſhow the abſurdity of this notion. A ſenſible lady, rather than read a medical performance, which would inſtruct her in the management of her children, muſt leave them entirely to the care and conduct of the moſt ignorant, credulous, and ſuperſtitious part of the human ſpecies.

Indeed, no part of medicine is of more general importance than that which relates to the nurſing and management of children. Yet few parents pay a proper attention to it. They leave the ſole care of their tender offſpring, at the very time when care and attention are moſt neceſſary, to hirelings, who are either too careleſs to do their duty, or too ignorant to know it. More lives are loſt by the careleſſneſs and inattention of parents and nurſes, than are ſaved by the faculty. The joint and well-conducted endeavours of private perſons and the public, for the preſervation of infant lives, would be of more advantage to ſociety, than the whole art of medicine, upon its preſent footing.

The benefits of medicine, as a trade, will ever be confined to thoſe who are able to pay for them; and of courſe, the far greater part of mankind will be every where deprived of them. Phyſicians, like other people, muſt live by their employment, and the poor muſt either want advice altogether, or take up with that

which is worſe than none. There are not, however, any where wanting well-diſpoſed people, of better ſenſe, who are willing to ſupply the defect of medical advice to the poor, did not their fear of doing ill often ſuppreſs their inclination to do good. Such people are often deterred from worthy actions, by the fooliſh alarms founded in their ears by a ſet of men, who, to raiſe their own importance, magnify the difficulties of doing good, find fault with what is truly commendable, and fleer at every attempt to relieve the ſick, which is not conducted by the preciſe rules of medicine. Theſe gentlemen muſt, however, excuſe me for ſaying, that I have often known ſuch well-diſpoſed perſons do much good; and that their practice, which is generally the reſult of good ſenſe and obſervation, aſſiſted by a little medical reading, is frequently more rational, than that of the ignorant retainer to phyſic, who deſpiſes both reaſon and obſervation, that he may go wrong by rule; and who, while he is doſing his patient with medicines, often neglects other things of far greater importance.

Many things are neceſſary for the ſick, beſides medicine. Nor is the perſon who takes care to procure thoſe for them, of leſs importance than a phyſician. The poor oftner periſh in diſeaſes, for want of proper nurſing, than of medicine. They are frequently in want of even the neceſſaries of life, and ſtill more ſo of what is proper for a ſick bed: No one can imagine, who has not been a witneſs of theſe ſituations, how much good a well-diſpoſed perſon may do, by only taking care to have ſuch wants ſupplied. There certainly cannot be a more neceſſary, a more noble, or a more godlike action, than to adminiſter to the wants of our fellow-creatures in diſtreſs.

Perſons who do not chuſe to adminiſter medicine to the ſick, may nevertheleſs direct their regimen. An eminent medical author has ſaid, that by diet alone all the intentions of medicine may be anſwered. No doubt a great many of them may; but there are other things beſide diet, which ought by no means to be neglected. Many hurtful and deſtructive prejudices, with regard to the treatment of the ſick, ſtill prevail among the people, which perſons of better ſenſe and learning alone can eradicate. To guard the poor againſt the influence of theſe prejudices, and to inſtil into their minds ſome juſt ideas of the importance of proper food, freſh air, cleanlineſs, and other pieces of regimen neceſſary in diſeaſes, would be a work of great merit, and productive of many happy conſequences. A proper regimen, in moſt diſeaſes, is at leaſt equal to medicine, and in many of them, it is greatly ſuperior.

To aſſiſt the well-meant endeavours of the humane and benevolent in relieving diſtreſs; to eradicate dangerous and hurtful prejudices; to guard the ignorant and credulous againſt the frauds and impoſitions of quacks and impoſtors; and to ſhow men what is in their own power, both with regard to the prevention and cure of diſeaſes, are certainly objects worthy of the phyſician's atten-

tion. Theſe were the leading views in compoſing and publiſhing the following ſheets. They were ſuggeſted by an attention to the conduct of mankind, with regard to medicine, in the courſe of a pretty long practice in different parts of this iſland, during which the author has often had occaſion to wiſh that his patients, or thoſe about them, had been poſſeſſed of ſome ſuch plain directory for regulating their conduct. How far he has ſucceeded in his endeavours to ſupply this deficiency, muſt be left for others to determine; but if they be found to contribute, in any meaſure, towards alleviating the calamities of mankind, he will think his labour very well beſtowed.

# PART I.

OF THE

# General Cauſes of Diſeaſes.

## CHAPTER I.

## OF CHILDREN.

THE better to trace diſeaſes from their original cauſes, we ſhall take a view of the common treatment of mankind, in the ſtate of infancy. In this period, the foundations of a good or bad conſtitution are generally laid; it is therefore of importance, that parents be acquainted with the various cauſes which may injure the health of their offſpring.

It appears from the annual regiſters of the dead, that almoſt one half of the children born in Britain, die under twelve years of age. To many, indeed, this may appear a natural evil, but, on due examination, it will be found to be one of our own creating. Were the death of infants a natural evil, other animals would be as liable to die young, as man; but this we find is not the caſe.

It may ſeem ſtrange, that man, notwithſtanding his ſuperior reaſon, ſhould fall ſo far ſhort of other animals, in the management of his young: But our ſurpriſe will ſoon ceaſe, if we conſider that brutes, guided by inſtinct, never err in this reſpect; while man, truſting ſolely to art, is ſeldom right. Were a catalogue of thoſe infants, who periſh annually by art alone, exhibited to public view, it would aſtoniſh moſt people.

If parents are above taking care of their children, others muſt be employed for that purpoſe: Theſe will endeavour to recommend themſelves by the appearance of extraordinary ſkill and addreſs. By this means ſuch a number of unneceſſary and deſtructive articles have been introduced into the diet, clothing, &c. of infants, that it is no wonder ſo many periſh.

Nothing can be more prepoſterous than a mother who thinks it beneath her to take care of her own child, or who is ſo ignorant as not to know what is proper to be done for it. If we ſearch nature throughout, we cannot find a parallel to this. Every other animal is the nurſe of its own offſpring, and they thrive accordingly. Were

the brutes to bring up their young by proxy, they would ſhare the ſame fate with thoſe of the human ſpecies.

We mean not, however, to impoſe it as a taſk upon every mother to ſuckle her own child. This is in ſome caſes impracticable, and would inevitably prove deſtructive both to the mother and child. Women of delicate conſtitutions, ſubject to hyſteric fits, or other nervous affections, make bad nurſes: and theſe complaints are now ſo common, that it is rare to find a woman of faſhion free from them; ſuch women, therefore, ſuppoſing them willing, are often unable to ſuckle their own children.

Almoſt every mother would be in a condition to give ſuck, did mankind live agreeably to nature: but whoever conſiders how far many mothers deviate from her dictates, will not be ſurpriſed to find ſome of them unable to perform that neceſſary office. Mothers who do not eat a ſufficient quantity of ſolid food, nor enjoy the benefit of free air and exerciſe, can neither have wholeſome juices themſelves, nor afford proper nouriſhment to an infant: Hence children, who are ſuckled by delicate women, either die young, or are weak and ſickly all their lives.

When we ſay that mothers are not always in a condition to ſuckle their own children, we would not be underſtood as diſcouraging that practice. Every mother who can, ought certainly to perform ſo tender and agreeable an office*. But, ſuppoſe it to be out of her power, ſhe may, nevertheleſs, be of great ſervice to her child. The buſineſs of nurſing, is by no means confined to giving ſuck. To a woman who abounds with milk, this is the eaſieſt part of it. Numberleſs other offices are neceſſary for a child, which the mother ought at leaſt to ſee done.

A mother who abandons the fruit of her womb, as ſoon as it is born, to the ſole care of an hireling, hardly deſerves that name. A child, by being brought up under the mother's eye, not only ſecures her affection, but may reap all the advantages of a parent's care, though it be ſuckled by another. How can a mother be better employed than in ſuperintending the nurſery? This is at once the moſt delightful and important office; yet the moſt trivial buſineſs or inſipid amuſements are often preferred to it! A ſtrong proof both of the bad taſte and wrong education of modern females.

* Many advantages would ariſe to ſociety, as well as to individuals, from mothers ſuckling their own children. It would prevent the temptation which poor women are laid under, of abandoning their children, to ſuckle thoſe of the rich, for the ſake of gain: By which means, ſociety loſes many of its moſt uſeful members, and mothers become in ſome ſenſe the murderers of their own offſpring. I am ſure I ſpeak within the truth, when I ſay, that not one in twenty of thoſe children live, who are thus abandoned by their mothers. For this reaſon, no mother ſhould be allowed to ſuckle another's child, till her own is either dead, or fit to be weaned. A regulation of this kind would ſave many lives among the poorer ſort, and could do no hurt to the rich, as moſt women who make good nurſes are able to ſuckle two children in ſucceſſion upon the ſame milk.

It is indeed to be regretted, that more care is not beſtowed in teaching the proper management of children to thoſe whom nature has deſigned for mothers. This, inſtead of being made the principal, is ſeldom conſidered as any part of female education. Is it any wonder, when females ſo educated come to be mothers, that they ſhould be quite ignorant of the duties belonging to that character? However ſtrange it may appear, it is certainly true, that many mothers, and thoſe of faſhion too, are as ignorant, when they have brought a child into the world, of what is to be done for it, as the infant itſelf. Indeed, the moſt ignorant of the ſex are generally reckoned moſt knowing in the buſineſs of nurſing. Hence, ſenſible people become the dupes of ignorance and ſuperſtition; and the nurſing of children, inſtead of being conducted by reaſon, is the reſult of whim and caprice*.

Were the time that is generally ſpent by females, in the acquiſition of trifling accompliſhments, employed in learning how to bring up their children; how to dreſs them ſo, as not to hurt, cramp, or confine their motions; how to feed them with wholeſome and nouriſhing food; how to exerciſe their tender bodies, ſo as beſt to promote their growth and ſtrength: Were theſe made the objects of female inſtruction, mankind would derive the greateſt advantages from it. But while the education of females, implies little more, than what relates to dreſs and public ſhow, we have nothing to expect from them, but ignorance, even in the moſt important concerns.

Did mothers reflect on their own importance, and lay it to heart, they would embrace every opportunity of informing themſelves of the duties, which they owe to their infant offspring. It is their province, not only to form the body, but alſo to give the mind its moſt early bias. They have it very much in their power, to make men healthy or valetudinary, uſeful in life, or the peſts of ſociety.

But the mother is not the only perſon concerned in the management of children. The father has an equal intereſt in their welfare, and ought to aſſiſt in every thing that reſpects either the improvement of the body or mind.

It is a pity that the men ſhould be ſo inattentive to this matter. Their negligence is one reaſon why females know ſo little of it. Women will ever be deſirous to excel in ſuch accompliſhments as recommend them to the other ſex. But men generally keep at ſuch a diſtance from even the ſmalleſt acquaintance with the affairs of the nurſery, that many would reckon it an affront, were they ſup-

* Tacitus, the celebrated Roman hiſtorian, complains greatly of the degeneracy of the Roman ladies in his time, with regard to the care of their offspring. He ſays, that, in former times, the greateſt women in Rome uſed to account it their chief glory to keep the houſe and attend their children; but that now the young infant was committed to the ſole care of ſome poor Grecian wench, or other menial ſervant. We are afraid, wherever luxury and effeminacy prevail, there will be too much ground for this complaint.

poſed to know any thing of them. Not ſo, however, with the kennel or the ſtables: A gentleman of the firſt rank is not aſhamed to give directions concerning the management of his dogs or horſes, yet would bluſh, were he ſurpriſed in performing the ſame office for that being, who derived its exiſtence from himſelf, who is the heir of his fortunes, and the future hope of his country.

Nor have phyſicians themſelves been ſufficiently attentive to the management of children: This has been generally conſidered as the ſole province of old women, while men of the firſt character in phyſic, have refuſed to viſit infants, even when ſick. Such conduct in the faculty, has not only cauſed this branch of medicine to be neglected, but has alſo encouraged the other ſex to aſſume an abſolute title to preſcribe for children, in the moſt dangerous diſeaſes. The conſequence is, that a phyſician is ſeldom called, till the good women have exhauſted all their ſkill; when his attendance can only ſerve to divide the blame, and appeaſe the diſconſolate parents.

Nurſes ſhould do all in their power to prevent diſeaſes; but when a child is taken ill, ſome perſon of ſkill ought immediately to be conſulted. The diſeaſes of children are generally acute, and the leaſt delay is dangerous.

Were phyſicians more attentive to the diſeaſes of infants, they would not only be better qualified to treat them properly when ſick, but likewiſe to give uſeful directions for their management, when well. The diſeaſes of children are by no means ſo difficult to be underſtood as many imagine. It is true, children cannot tell their complaints; but the cauſes of them may be pretty certainly diſcovered, by obſerving the ſymptoms, and putting proper queſtions to the nurſes. Beſides, the diſeaſes of infants, being leſs complicated, are eaſier cured than thoſe of adults*.

## Of Diſeaſed Parents.

ONE great ſource of the diſeaſes of children is, the unhealthineſs of parents. It would be as reaſonable to expect a rich crop from a barren ſoil, as that ſtrong and healthy children ſhould be born of parents, whoſe conſtitutions have been worn out with intemperance or diſeaſe.

Rouſſeau obſerves, that on the conſtitution of mothers depends originally that of their offſpring. No one who believes this, will be ſurpriſed, on a view of the female world, to find diſeaſes and death ſo frequent among children. A delicate female, brought up within

* The common opinion, that the diſeaſes of infants are hard to diſcover, and difficult to cure, has deterred many phyſicians from paying that attention to them which they deſerve—I can, however, from experience, declare, that this opinion is without foundation, and that they are neither ſo difficult to diſcover, nor ſo ill to cure, as thoſe of adults.

doors, an utter ſtranger to exerciſe and open air, who lives on tea and other ſlops, may bring a child into the world, but it will hardly be fit to live. The firſt blaſt of diſeaſe will nip the tender plant in the bud: Or, ſhould it ſtruggle through a few years exiſtence, its feeble frame, ſhaken with convulſions from every trivial cauſe, will be unable to perform the common functions of life, and prove a burden to ſociety.

If, to the delicacy of mothers, we add the irregular lives of fathers, we ſhall ſee further cauſe to believe, that children are often hurt by the conſtitution of their parents. A ſickly frame may be originally induced by hardſhips or intemperance, but chiefly by the latter. It is impoſſible that a courſe of vice ſhould not ſpoil the beſt conſtitution: and, did the evil terminate here, it would be a juſt puniſhment for the folly of the ſufferer; but when once a diſeaſe is contracted and rivetted in the habit, it is entailed on poſterity. What a dreadful inheritance is the gout, the ſcurvy, or the king's evil, to tranſmit to our offſpring! How happy had it been for the heir of many a great eſtate, had he been born a beggar, rather than to inherit his father's fortunes at the expenſe of inheriting his diſeaſes!

No perſon who labours under any incurable malady ought to marry. He thereby not only ſhortens his own life, but tranſmits miſery to others: but when both parties are deeply tainted with the ſcrophula, the ſcurvy, or the like, the effects muſt be ſtill worſe. If ſuch have any iſſue, they muſt be miſerable indeed. Want of attention to theſe things, in forming connexions for life, has rooted out more families than plague, famine, or the ſword; and as long as theſe connexions are formed from mercenary views, the evil will be continued*.

In our matrimonial contracts, it is amazing ſo little regard is had to the health and form of the object. Our ſportſmen know, that the generous courſer cannot be bred out of the foundered jade, nor the ſagacious ſpaniel out of the ſnarling cur. This is ſettled upon immutable laws. The man who marries a woman of a ſickly conſtitution, and deſcended of unhealthy parents, whatever his views may be, cannot be ſaid to act a prudent part. A diſeaſed woman may prove fertile; ſhould this be the caſe, the family muſt become an infirmary: what proſpect of happineſs the father of ſuch a family has, we ſhall leave any one to judge†.

* The Lacedemonians condemned their king Archidamus, for having married a weak, puny woman; becauſe, ſaid they, inſtead of propagating a race of heroes, you will fill the throne with a progeny of changelings.

† The Jews, by their laws, were, in certain caſes, forbid to have any manner of commerce with the diſeaſed; and indeed to this all wiſe legiſlators ought to have a ſpecial regard. In ſome countries, diſeaſed perſons have actually been forbid to marry. This is an evil, of a complicated kind, a natural deformity, and political miſchief; and therefore requires a public conſideration.

Such children as have the misfortune to be born of diſeaſed parents, require to be nurſed with greater care than others. This is the only way to make amends for the defects of conſtitution; and it will often go a great length. A healthy nurſe, wholeſome air, and ſufficient exerciſe, will do wonders. But when theſe are neglected, little is to be expected from any other quarter. The defects of conſtitution cannot be ſupplied by medicine.

Thoſe who inherit any family-diſeaſe ought to be very circumſpect in their manner of living. They ſhould conſider well the nature of ſuch diſeaſe, and guard againſt it by a proper regimen. It is certain, that family diſeaſes, have often, by proper care, been kept off for one generation; and there is reaſon to believe, that by perſiſting in the ſame courſe, ſuch diſeaſes might at length be wholly eradicated. This is a ſubject very little regarded, though of the greateſt importance. Family-conſtitutions are as capable of improvement as family-eſtates; and the libertine, who impares the one, does greater injury to his poſterity, than the prodigal, who ſquanders away the other.

## Of the Clothing of Children.

THE clothing of an infant, is ſo ſimple a matter, that it is ſurpriſing how any perſon ſhould err in it; yet many children loſe their lives, and others are deformed, by inattention to this article.

Nature knows no uſe of clothes to an infant but to keep it warm. All that is neceſſary for this purpoſe, is to wrap it in a ſoft looſe covering. Were a mother left to the dictates of nature alone, ſhe would certainly purſue this courſe. But the buſineſs of dreſſing an infant has long been out of the hands of mothers, and has at laſt become a ſecret, which none but adepts pretend to underſtand.

From the moſt early ages it has been thought neceſſary, that a woman in labour, ſhould have ſome perſon to attend her. This, in time, became a buſineſs; and, as in all others, thoſe who were employed in it, ſtrove to out-do one-another in the different branches of their profeſſion. The dreſſing of a child came of courſe to be conſidered as the midwife's province, who, no doubt imagined, that the more dexterity ſhe could ſhow in this article, the more her ſkill would be admired. Her attempts were ſeconded by the vanity of parents, who, too often deſirous of making a ſhow of the infant as ſoon as it was born, were ambitious to have as much finery heaped upon it as poſſible. Thus, it came to be thought as neceſſary for a midwife to excel in bracing and dreſſing an infant, as for a ſurgeon to be expert in applying bandages to a broken limb; and the poor child, as ſoon as it came into the world, had as many rollers and wrappers applied to its body, as if every bone had been fractur-

ed in the birth; while these were often so tight, as not only to gall and wound its tender frame, but even to obstruct the motion of the heart, lungs, and other organs necessary for life.

In most parts of Britain, the practice of rolling children, with so many bandages, is now, in some measure, laid aside; but it would still be a difficult task to pursuade the generality of mankind, that the shape of an infant does not entirely depend on the midwife. So far, however, are all her endeavours to mend the shape, from being successful, that they constantly operate the contrary way, and mankind become deformed just in proportion to the means used to prevent it. How little deformity of body is to be found among uncivilized nations? So little indeed, that it is vulgarly believed, they put all their deformed children to death. The truth is, they hardly know such a thing as a deformed child. Neither should we, if we followed their example. Savage nations never think of manacling their children. They allow them the full use of every organ, carry them abroad in the open air, wash their bodies daily in cold water, &c. By this management, their children become so strong and hardy, that, by the time our puny infants get out of the nurse's arms, their's are able to shift for themselves*.

Among brute animals, no art is necessary to procure a fine shape. Though many of them are extremely delicate when they come into the world, yet we never find them grow crooked for want of swaddling bands. Is nature less generous to the human kind? No: but we take the business out of nature's hands.

Not only the analogy of other animals, but the very feelings of infants tell us, they ought to be kept easy and free from all pressure. They cannot indeed tell their complaints; but they can show signs of pain; and this they never fail to do, by crying, when hurt by their clothes. No sooner are they freed from their bracings, than they seem pleased and happy; yet, strange infatuation! the moment they hold their peace, they are again committed to their chains.

If we consider the body of an infant as a bundle of soft pipes, replenished with fluids in continual motion, the danger of pressure will appear in the strongest light. Nature, in order to make way for the growth of children, has formed their bodies soft and flexible; and lest they should receive any injury from pressure in the womb, has surrounded the *fœtus* every where with fluids. This shows the care which nature takes, to prevent all unequal pressure on the bodies of infants, and to defend them against every thing that might in the least cramp or confine their motions.

Even the bones of an infant are so soft and cartilaginous, that they readily yield to the slightest pressure, and easily assume a bad

* A friend of mine, who was several years on the coast of Africa, tells me, that the natives neither put any clothes upon their children, nor apply to their bodies bandages of any kind, but lay them on a pallet, and suffer them to tumble about at pleasure; yet they are all strait, and seldom have any disease.

ſhape, which can never after be remedied. Hence it is, that ſo many people appear with high ſhoulders, crooked ſpines, and flat breaſts, who were as well proportioned at their birth as others, but had the misfortune to be ſqueezed out of ſhape by the application of ſtays and bandages.

Preſſure, by obſtructing the circulation, likewiſe prevents the equal diſtribution of nouriſhment to the different parts of the body, by which means the growth becomes unequal. One part grows too large, while another remains too ſmall; and thus in time the whole frame becomes diſproportioned and misſhapen. To this we muſt add, that when a child is cramped in its clothes, it naturally ſhrinks from the part that is hurt; and, by putting its body into unnatural poſtures, it becomes deformed by habit.

Deformity of body, may indeed proceed from weakneſs or diſeaſe; but in general, it is the effect of improper clothing. Nine tenths, at leaſt, of the deformity among mankind, muſt be imputed to this cauſe. A deformed body is not only diſagreeable to the eye, but by a bad figure, both the animal and vital functions muſt be impeded, and of courſe health impaired. Hence few people remarkably misſhapen are ſtrong or healthy.

The new motions which commence at the birth, as the circulation of the whole maſs of blood through the lungs, reſpiration, the periſtaltic motion, &c. afford another ſtrong argument for keeping the body of an infant free from all preſſure. Theſe organs not having been accuſtomed to move, are eaſily ſtopped; but when this happens, death muſt enſue. Hardly any method could be deviſed more effectually to ſtop theſe motions, than bracing the body too tight with rollers* and bandages. Were theſe to be applied in the ſame manner to the body of an adult, for an equal length of time, they could hardly fail to hurt the digeſtion, and make him ſick. How much more hurtful they muſt prove to the tender bodies of infants, we ſhall leave any one to judge.

Whoever conſiders theſe things, will not be ſurpriſed, that ſo many children die of convulſions ſoon after the birth. Theſe fits are generally attributed to ſome inward cauſe; but in fact, they oftener proceed from our own imprudent conduct. I have known a child ſeized with convulſion-fits ſoon after the midwife had done ſwaddling it, who, upon taking off the rollers and bandages, was immediately relieved, and never had the diſeaſe afterwards. Numerous examples of this might be given, were they neceſſary.

It would be ſafer to fix on the clothes of an infant with ſtrings than pins, as theſe often gall and irritate their tender ſkins, and occaſion diſorders. Pins have been found ſticking above half an inch into the body of a child, after it had died of convulſion fits, which, in all probability, proceeded from that cauſe.

* This is by no means inveighing againſt a thing that does not happen. In many parts of Britain, at this day, a roller, eight or ten feet in length, is applied tightly round the child's body as ſoon as it is born,

Children are not only hurt by the tightneſs of their clothes, but alſo by the quantity. Every child has ſome degree of fever after the birth; and if it be loaded with too many clothes, the fever muſt be increaſed. But this is not all; the child is generally laid in bed with the mother, who is often likewiſe feveriſh; to which we may add the heat of the bed-chamber, the wines, and other heating things, too frequently given to children, immediately after the birth. When all theſe are combined, which does not ſeldom happen, they muſt increaſe the fever to ſuch a degree, as will endanger the life of the infant.

The danger of keeping infants too hot will further appear, if we conſider, that after they have been for ſometime in the ſituation mentioned above, they are often ſent into the country to be nurſed in a cold houſe. Is it any wonder, if a child, from ſuch a tranſition, catches a mortal cold, or contracts ſome other fatal diſeaſe? When an infant is kept too hot, its lungs, not being ſufficiently expanded, are apt to remain weak and flaccid for life; hence proceed coughs, conſumptions, and other diſeaſes of the breaſt.

It would anſwer little purpoſe, to ſpecify the particular pieces of dreſs, proper for an infant. Theſe will always vary in different countries, according to cuſtom and the humour of parents. The great rule to be obſerved is, that a child have no more clothes than are neceſſary to keep it warm, and that they be quite eaſy for its body.

Stays are the very bane of infants. A volume would not ſuffice to point out all the bad effects of this ridiculous piece of dreſs, both on children and adults. The madneſs in favour of ſtays, ſeems however, to be ſomewhat abated; and it is to be hoped that the world will, in time, become wiſe enough to know, that the human ſhape does not ſolely depend upon whale-bone and bend-leather*.

The clothes of children ought to be kept thoroughly clean. Children perſpire more than adults; and if their clothes be not frequently changed, they become very hurtful. Dirty clothes not only fret and gall the tender ſkins of infants, but likewiſe occaſion ill ſmells; and what is worſe, tend to produce vermin and cutaneous diſeaſes.

Cleanlineſs is not only agreeable to the eye, but tends greatly to preſerve the health of children. It promotes the perſpiration, and by that means, frees the body from ſuperfluous humours,

* Stays made of bend-leather, are worn by all the women of lower ſtation, in many parts of England.

There are ſtill mothers mad enough, to lace their daughters very tight, in order to improve their ſhape. As reaſoning would be totally loſt upon ſuch people, I ſhall beg leave, juſt to aſk them, Why there are ten deformed women for one man? and likewiſe, to recommend to their peruſal, a ſhort moral precept, which forbids us to deform the human body.

which, if retained, could not fail to occaſion diſeaſes. No mother or nurſe can have any excuſe for allowing a child to be dirty. Poverty may oblige her to give it coarſe clothes; but if ſhe does not keep them clean, it muſt be her own fault.

## Of the Food of Children.

NATURE not only points out, the proper food for an infant, but actually prepares it. This does not prevent ſome, who think themſelves wiſer than nature, from attempting to bring up their children, without her proviſion. Nothing can ſhow the diſpoſition which mankind have to depart from nature, more, than their endeavouring to bring up children without the breaſt. The mother's milk, or that of a healthy nurſe, is unqueſtionably the beſt food for an infant. Neither art nor nature can afford a proper ſubſtitute for it. Children may ſeem to thrive for a few months without the breaſt; but when teething, the ſmall-pox, and other diſeaſes, incident to childhood, come on, they generally periſh.

A child, ſoon after birth, ſhows an inclination to ſuck; and it ſhould be gratified. The mother's milk does not always come immediately after the birth; but this is the way to bring it: Beſides, the firſt milk that the child can ſqueeze out of the breaſt, anſwers the purpoſe of cleanſing, better than all the drugs in the apothecary's ſhop, and at the ſame time prevents inflammations of the breaſt, fevers, and other diſeaſes incident to mothers.

It is ſtrange how people came to think, that the firſt thing given to a child, ſhould be drugs. This is beginning with medicine by times, and no wonder, if they generally end with it. It ſometimes happens, indeed, that the child does not diſcharge the *meconium* ſo ſoon as could be wiſhed; this has induced phyſicians, in ſuch caſes, to give ſomething of an opening nature, to cleanſe the firſt paſſages. Midwives have improved upon this hint, and never fail to give ſyrups, oils, &c. whether they be neceſſary or not. Cramming an infant with ſuch indigeſtible ſtuff, as ſoon as it is born, can hardly fail to make it ſick, and is more likely to occaſion diſeaſes, than to prevent them. Children are ſeldom long after the birth without having paſſage both by ſtool and urine; though theſe evacuations may be wanting for ſome time, without danger. But if children muſt have ſomething before they be allowed the breaſt, let it be a little thin water-pap, to which may be added an equal quantity of new milk; or rather water alone, with the addition of a little raw ſugar. If this be given without any wines or ſpiceries, it will neither heat the blood, load the ſtomach, nor occaſion gripes.

Upon the firſt ſight of an infant, almoſt every perſon is ſtruck with the idea of its being weak, feeble, and wanting ſupport. This

ſuggeſts the need of cordials. Accordingly, wines are univerſally mixed with the firſt food of children. Nothing can be more fallacious than this way of reaſoning, or more hurtful to infants than the conduct founded upon it. Children require very little food for ſome time after the birth; and what they receive ſhould be thin, weak, light, and of a cooling quality. A very ſmall quantity of wine is ſufficient to heat and inflame the blood of an infant; but every perſon converſant in theſe matters, muſt know, that moſt of the diſeaſes of infants proceed from the heat of their humours.

If the mother or nurſe has enough of milk, the child will need little or no other food, before the third or fourth month. It will then be proper to give it, once or twice a day, a little of ſome food, that is eaſy of digeſtion, as water-pap, milk-pottage, weak broth, with bread in it, and ſuch like. This will eaſe the mother, will accuſtom the child by degrees to take food, and will render the weaning both leſs difficult and leſs dangerous. All great and ſudden tranſitions are to be avoided in nurſing. For this purpoſe, the food of children ought not only to be ſimple, but to reſemble, as nearly as poſſible, the properties of milk*. Indeed, milk itſelf, ſhould make a principal part of their food, not only before they are weaned, but for a long time after.

Next to milk, we would recommend good light bread. Bread may be given to a child as ſoon as it ſhows an inclination to chew; and it may at all times be allowed as much plain bread, as it will eat. The very chewing of bread will promote the cutting of the teeth, and the diſcharge of ſaliva, while by mixing with the nurſe's milk in the ſtomach, it will afford an excellent nouriſhment. Children diſcover an early inclination to chew whatever is put into their hands. Parents obſerve the inclination, but generally miſtake the object. Inſtead of giving the child ſomething, which may at once exerciſe its gums and afford it nouriſhment, they commonly put into its hands a piece of hard metal, or impenetrable coral. A cruſt of bread is the beſt gum-ſtick. It anſwers the purpoſe better than any thing elſe, and has the additional properties of nouriſhing the child, and carrying the ſaliva down to the ſtomach, which is too valuable a liquor to be loſt.

Bread, beſides being uſed dry, may be many ways prepared into food for children. One of the beſt methods is to boil it in water, afterwards pouring the water off, and mixing with the bread, a proper quantity of new milk unboiled. Milk is both more wholeſome and nouriſhing this way than boiled, and is leſs apt to occaſion coſtiveneſs. For a child farther advanced, bread may be mixed in veal or chicken broth, made into puddings, or the like. Bread is a proper food for children at all times, provided it be plain, made

* A mixture of one-fourth milk, and three-fourths barley-water, with the addition of ſome loaf-ſugar, is a good ſubſtitute for the milk of the mother. (I. C.)

of wholeſome grain, and well fermented; but when enriched with fruits, ſugars, or ſuch things, it becomes very unwholeſome.

It is ſoon enough to allow children animal food, when they have got teeth to eat it. They ſhould never taſte it till after they are weaned, and even then they ought to uſe it ſparingly. Indeed, when children live wholly on vegetable food, it is apt to ſour their ſtomachs; but on the other hand, too much fleſh heats the body, and occaſions fevers and other inflammatory diſeaſes. This plainly points out a due mixture of animal and vegetable food, as the moſt proper for children.

Few things prove more hurtful to infants, than the common method of ſweetening their food. It entices them to take more than they ought to, which makes them grow fat and bloated. It is pretty certain, if the food of children were quite plain, that they would never take more than enough. Their exceſſes are entirely owing to nurſes. If a child be gorged with food at all hours, and enticed to take it, by making it ſweet and agreeable to the palate, is it any wonder, that ſuch a child ſhould in time be induced to crave more food than it ought to have?

Children may be hurt by too little as well as too much food*. After a child is weaned, it ought to be fed four or five times a day; but ſhould never be accuſtomed to eat in the night; neither ſhould it have too much at a time. Children thrive beſt with ſmall quantities of food frequently given. This neither overloads the ſtomach, nor hurts the digeſtion, and is certainly moſt agreeable to nature.

Writers on nurſing have inveighed with ſuch vehemence againſt giving children too much food, that many parents, by endeavouring to ſhun that error, have run into the oppoſite extreme, and ruined the conſtitutions of their children. But the error of pinching children in their food is more hurtful than the other extreme. Nature has many ways of relieving herſelf when overcharged; but a child, who is pinched with hunger, will never become a ſtrong or healthy man. That errors are frequently committed on both ſides, we are ready to acknowledge; but where one child is hurt by the quantity of its food, ten ſuffer from the quality. This is the principal evil, and claims our ſtricteſt attention.

Many people imagine that the food they themſelves love, cannot be bad for their children: but this notion is very abſurd. In the more advanced periods of life, we often acquire an inclination for food, which, when children, we could not endure. Beſides, many things may by habit, agree very well with the ſtomach of a grown perſon, which would be hurtful to a child; as high-ſeaſoned, ſalted, and ſmoke-dried proviſions, &c. It would alſo be improper to feed children with fat meat, ſtrong broaths, rich ſoups, or the like.

* They ſhould be indulged in eating, as long as they eat with avidity; but as ſoon as that has ſubſided, the food ſhould be withdrawn, or they will be apt to overload their ſtomachs. (I. C.)

All ſtrong liquors are hurtful to children. Some parents teach their children to guzzle ale, and other fermented liquors, at every meal. Such a practice cannot fail to do miſchief. Theſe children ſeldom eſcape the violence of the ſmall-pox, meaſles, hooping-cough, or ſome inflammatory diſorder. Milk, water, butter-milk, or whey, are the moſt proper for children to drink. If they have any thing ſtronger, it may be fine ſmall beer, or a little wine mixed with water. The ſtomachs of children can digeſt well enough, without the aſſiſtance of warm ſtimulants: Beſides, being naturally hot, they are eaſily hurt by every thing of a heating quality.

Few things are more hurtful to children than unripe fruits. They weaken the powers of digeſtion, and ſour and relax the ſtomach, by which means it becomes a proper neſt for inſects. Children ſhow a great inclination for fruit, and I believe, that if good ripe fruit were allowed them in proper quantity, it would have no bad effects. We never find a natural inclination wrong, if properly regulated. Fruits are generally of a cooling nature, and correct the heat and acrimony of the humours. This is what moſt children require; only care ſhould be taken leſt they exceed. The beſt way to prevent children from going to exceſs in the uſe of fruit, or eating that which is bad, is to allow them a proper quantity of what is good*.

Roots which contain a crude viſcid juice ſhould be ſparingly given to children. They fill the body with groſs humours, and tend to produce eruptive diſeaſes. This caution is peculiarly neceſſary for the poor; glad to obtain at a ſmall price, what will fill the bellies of their children, they ſtuff them two or three times a day, with greaſy potatoes, or other crude vegetables. Children had better eat a ſmaller quantity of food, which yields a wholeſome nouriſhment, than be crammed with what their digeſtive powers are unable properly to aſſimilate.

Butter ought likewiſe to be ſparingly given to children. It both relaxes the ſtomach, and produces groſs humours. Moſt things that are fat or oily, have this effect. Butter, when ſalted, becomes ſtill more hurtful. Inſtead of butter, ſo liberally given to children in moſt parts of Britain, we would recommend honey. Honey is not only wholeſome, but cooling, cleanſing, and tends to ſweeten the humours. Children who eat honey, are ſeldom troubled with worms: They are alſo leſs ſubject to cutaneous diſeaſes, as itch, ſcabbed-head, &c.

Many people err, in thinking that the diet of children ought to be altogether moiſt. When children live entirely upon ſlops, it re-

* Children are always ſickly in the fruit-ſeaſon, which may be thus accounted for: Two-thirds of the fruit which comes to market in this country, is really unripe; and children not being in a condition to judge for themſelves, eat whatever they lay their hands upon, which often proves little better than a poiſon for their tender bowels. Servants and others who have the care of children, ſhould be ſtrictly forbid to give them any fruit without the knowledge of their parents.

laxes their ſolids, renders them weak, and diſpoſes them to the rickets, the ſcrophula, and other glandular diſorders. Relaxation is one of the moſt general cauſes of the diſeaſes of children. Every thing therefore which tends to unbrace their ſolids, ought to be carefully avoided.

We would not be underſtood by theſe obſervations, as confining children to any particular kind of food. Their diet may be frequently varied, provided always, that ſufficient regard be had to ſimplicity.

## Of the Exerciſe of Children.

OF all the cauſes which conſpire to render the life of man ſhort and miſerable, none has greater influence than the want of proper exerciſe; healthy parents, wholeſome food, and proper clothing, will avail little, where exerciſe is neglected. Sufficient exerciſe will make up for ſeveral defects in nurſing; but nothing can ſupply the want of it. It is abſolutely neceſſary to the health, the growth, and the ſtrength of children.

The deſire of exerciſe is coeval with life itſelf. Were this principle attended to, many diſeaſes might be prevented. But, while indolence and ſedentary employments prevent two-thirds of mankind from either taking ſufficient exerciſe themſelves, or giving it to their children, what have we to expect, but diſeaſes and deformity among their offſpring? The rickets, ſo deſtructive to children, never appeared in Britain, till manufactures began to flouriſh, and people, attracted by the love of gain, left the country to follow ſedentary employments in great towns. It is amongſt theſe people that this diſeaſe chiefly prevails, and not only deforms, but kills many of their offſpring.

The conduct of other young animals, ſhows the propriety of giving exerciſe to children. Every other animal makes uſe of its organs of motion as ſoon as it can, and many of them, even when under no neceſſity of moving in queſt of food, cannot be reſtrained without force. This is evidently the caſe with the calf, the lamb, and moſt other young animals. If theſe creatures were not permitted to friſk about and take exerciſe, they would ſoon die or become diſeaſed. The ſame inclination appears very early in the human ſpecies; but as they are not able to take exerciſe themſelves, it is the buſineſs of their parents and nurſes to help them.

Children may be exerciſed various ways. The beſt method while they are light, is to carry them about in the nurſe's arms*. This gives the nurſe an opportunity of talking to the child, and of

* The nurſe ought to be careful to keep the child in a proper poſition; as deformity is often the conſequence of inattention to this circumſtance.

pointing out every thing, that may pleaſe and delight its fancy. Beſides, it is much ſafer than ſwinging an infant in a machine, or leaving it to the care of ſuch as are not fit to take care of themſelves. Nothing can be more abſurd than to ſet one child to keep another: This conduct has proved fatal to many infants, and has rendered others miſerable for life.

When children begin to walk, the ſafeſt and beſt method of leading them about, is by the hands. The common way, of ſwinging them in leading-ſtrings fixed to their backs, has ſeveral bad conſequences. It makes them throw their bodies forward, and preſs with their whole weight upon the ſtomach and breaſt; by this means, the breathing is obſtructed, the breaſt flattened, and the bowels compreſſed; which muſt hurt the digeſtion, and occaſion conſumptions of the lungs and other diſeaſes.

It is a common notion, that if children be ſet upon their feet too ſoon, their legs will become crooked. There is reaſon to believe, that the very reverſe of this is true. Every member acquires ſtrength, in proportion as it is exerciſed. The limbs of children are weak indeed, but their bodies are proportionally light; and had they ſkill to direct themſelves, they would ſoon be able to ſupport their own weight. Whoever heard of any other animal that became crooked by uſing its legs too ſoon? Indeed, if a child be not permitted to make any uſe of its legs till a conſiderable time after the birth, and be then ſet upon them with its whole weight at once, there may be ſome danger; but this proceeds entirely from the child's not having been accuſtomed to uſe its legs from the beginning.

Mothers of the poorer ſort think that they are great gainers by making their children lie or ſit while they themſelves work. In this they are greatly miſtaken. By neglecting to give their children exerciſe, they are obliged to keep them a long-time before they can do any thing for themſelves, and to ſpend more on medicine than would have paid for proper care.

To take care of their children, is the moſt uſeful buſineſs in which even the poor can be employed: But, alas! it is not always in their power. Poverty often obliges them to neglect their offſpring, in order to procure the neceſſaries of life. When this is the caſe, it becomes the intereſt as well as the duty of the public to aſſiſt them. Ten thouſand times more benefit would accrue to the ſtate, by enabling the poor to bring up their own children, than from all the hoſpitals* that can be erected for that purpoſe.

* If it were made the intereſt of the poor to keep their children alive, we ſhould looſe very few of them. A ſmall premium given annually to each poor family, for every child they have alive at the year's end, would ſave more infant lives, than if the whole revenue of the crown were expended in hoſpitals for this purpoſe. This would make the poor eſteem fertility a bleſſing; whereas many of them think it the greateſt curſe that can befal them; and in place of wiſhing their children to live, ſo far does poverty get the better of natural affection, that they are often very happy when they die.

Whoever conſiders the ſtructure of the human body, will ſoon be convinced of the neceſſity of exerciſe for the health of children. The body is compoſed of an infinite number of tubes, whoſe fluids cannot be puſhed on without the action and preſſure of the muſcles. But if the fluids remain inactive, obſtructions muſt happen, which cannot fail to occaſion diſeaſes. Nature has furniſhed both the veſſels which carry the blood and lymph with numerous valves, in order that the action of every muſcle might puſh forward their contents; but without action, this admirable contrivance can have no effect. This part of the animal œconomy proves to a demonſtration the neceſſity of exerciſe for the preſervation of health.

Arguments to ſhow the importance of exerciſe, might be drawn from every part of the animal œconomy: Without exerciſe, the circulation of the blood cannot be properly carried on, nor the different ſecretions duly performed; without exerciſe, the fluids cannot be properly prepared, nor the ſolids rendered ſtrong or firm. The action of the heart, the motion of the lungs, and all the vital functions, are greatly aſſiſted by exerciſe. But to point out the manner in which theſe effects are produced, would lead us farther into the œconomy of the human body, than moſt of thoſe for whom this treatiſe is intended would be able to follow. We ſhall therefore only add, that, where exerciſe is neglected, none of the animal functions can be duly performed; and when that is the caſe, the whole conſtitution muſt go to wreck.

A good conſtitution ought certainly to be our firſt object in the management of children. It lays a foundation for their being uſeful and happy in life; and whoever neglects it, not only fails in his duty to his offſpring, but to ſociety.

One very common error of parents, by which they hurt the conſtitutions of their children, is the ſending them too young to ſchool. This is often done ſolely to prevent trouble. When the child is at ſchool, he needs no keeper. Thus, the ſchool-maſter is made the nurſe; and the poor child is fixed to a ſeat ſeven or eight hours a day, which time ought to be ſpent in exerciſe and diverſions. Sitting ſo long cannot fail to produce the worſt effects upon the body; nor is the mind leſs injured. Early application weakens the faculties, and often fixes in the mind an averſion to books, which continues for life*.

But, ſuppoſe this were the way to make children ſcholars, it certainly ought not to be done at the expenſe of their conſtitutions. Our anceſtors, who ſeldom went to ſchool very young, were not leſs learned than we. But we imagine the boy's education will be

* It is undoubtedly the duty of parents to inſtruct their children, at leaſt, till they are of an age proper to take care of themſelves. This would tend much to confirm the ties of parental tenderneſs and filial affection, of the want of which, there are at preſent ſo many deplorable inſtances. Though few fathers have time to inſtruct their children, yet moſt mothers have; and ſurely, they cannot be better employed.

quite marred, unleſs he be carried to ſchool in the nurſe's arms. No wonder if ſuch hot-bed plants ſeldom become either ſcholars or men.

Not only the confinement of children in public ſchools, but their number, often proves hurtful. Children are much injured by being kept in crowds within doors; their breathing not only renders the place unwholeſome, but if any one of them happens to be diſeaſed, the reſt catch the infection. A ſingle child has been often known to communicate the bloody-flux, the hooping-cough, the itch, or other diſeaſes, to almoſt every individual in a numerous ſchool.

But, if infants are to be ſent to ſchool, teachers, as they value the intereſts of ſociety, ought not to confine them too long at a time, but allow them to run about and play at ſuch active diverſions as may promote their growth, and ſtrengthen their conſtitutions. Were boys, inſtead of being whipped for ſtealing an hour, to run, ride, ſwim, or the like, encouraged to employ a proper part of their time in theſe manly and uſeful exerciſes, it would have many excellent effects.

An effeminate education will infallibly ſpoil the beſt natural conſtitution; and if boys are brought up in a more delicate manner than even girls ought to be, they never will be men.

Nor is the common education of girls leſs hurtful to the conſtitution than that of boys. Miſs is ſet down to her frame before ſhe can put on her clothes; and is taught to believe, that to excel at the needle is the only thing that can entitle her to general eſteem. It is unneceſſary here to inſiſt upon the dangerous conſequences of obliging girls to ſit too much. They are pretty well known, and are too often felt at a certain time of life. But ſuppoſe this critical period be got over, greater dangers ſtill await them when they come to be mothers. Women who have been early accuſtomed to a ſedentary life, generally run great hazard in childbed; while thoſe who have been uſed to romp about, and take ſufficient exerciſe, are ſeldom in any danger.

One hardly meets with a girl who can at the ſame time boaſt of early performances by the needle, and a good conſtitution. Cloſe and early confinement generally occaſions indigeſtions, head-achs, pale-complexions, pain of the ſtomach, loſs of appetite, coughs, conſumptions of the lungs, and deformity of the body. The laſt of theſe indeed is not to be wondered at, conſidering the awkward poſtures in which girls ſit at many kinds of needle-work, and the delicate flexible ſtate of their bodies in the early periods of life.

Would mothers, inſtead of having their daughters inſtructed in many trifling accompliſhments, employ them in plain work and houſewifery, and allow them ſufficient exerciſe in the open air, they would both make them more healthy mothers, and more uſeful members of ſociety. I am no enemy to genteel accompliſhments, but would have them only conſidered as ſecondary, and always diſregarded, when they impair health.

Many people imagine it a great advantage for children to be early taught to earn their bread. This opinion is certainly right, provided they were ſo employed as not to hurt their health or growth; but, when theſe ſuffer, ſociety, inſtead of being benefitted, is a real loſer by their labour. There are few employments, except ſedentary ones, by which children can earn a livelihood; and if they be ſet to theſe too ſoon, it ruins their conſtitutions. Thus, by gaining a few years from childhood, we generally loſe twice as many in the latter period of life, and even render the perſon leſs uſeful while he does live.

In order to be ſatisfied of the truth of this obſervation, we need only look into the great manufacturing towns, where we ſhall find a puny degenerate race of people, weak and ſickly all their lives, ſeldom exceeding the middle period of life; or if they do, being unfit for buſineſs, they become a burden to ſociety. Thus, arts and manufactures, though they may increaſe the riches of a country, are by no means favourable to the health of its inhabitants. Good policy would therefore require, that ſuch people as labour during life, ſhould not be ſet too early to work. Every perſon converſant in the breed of horſes, or other working animals, knows, that if they be ſet to hard labour too ſoon, they will never turn out to advantage. This is equally true, with reſpect to the human ſpecies.

There are nevertheleſs, various ways of employing young people without hurting their health. The eaſier parts of gardening, huſbandry, or any buſineſs carried on without doors, are moſt proper. Theſe are employments which moſt young people are fond of, and ſome parts of them may always be adapted to their age, taſte, and ſtrength*.

Such parents as are under the neceſſity of employing their children within doors, ought to allow them ſufficient time for active diverſions without. This would both encourage them to do more work, and prevent their conſtitutions from being hurt.

Some imagine, that exerciſe within doors is ſufficient; but they are greatly miſtaken. One hour ſpent in running, or any other exerciſe without doors, is worth ten within. When children cannot go abroad, they may indeed be exerciſed at home. The beſt method of doing this, is to make them run about in a long room, or dance. This laſt kind of exerciſe, if not carried to exceſs, is of excellent ſervice to young people. It cheers the ſpirits, promotes perſpiration, ſtrengthens the limbs, &c. I knew an eminent phyſician, who uſed to ſay, that he made his children dance, inſtead of giving them phyſic. It were well if more people followed his example.

The cold-bath may be conſidered as an aid to exerciſe. By it the body is braced and ſtrengthened, the circulation and ſecretions

* I have been told that in China, where the police is the beſt in the world, all the children are employed in the eaſier part of gardening and huſbandry; as weeding, gathering ſtones off the land, and ſuch like.

promoted, and, were it conducted with prudence, many diſeaſes, as the rickets, ſcrophula, &c. might thereby be prevented. The ancients, who took every method to render children hardy and robuſt, were no ſtrangers to the uſe of the cold bath; and, if we may credit report, the practice of immerſing children daily in cold water muſt have been very common among our anceſtors.

The greateſt objection to the uſe of the cold bath ariſes from the ſuperſtitious prejudices of nurſes. Theſe are often ſo ſtrong, that it is impoſſible to bring them to make a proper uſe of it. I have known ſome of them who would not dry a child's ſkin after bathing it, leſt it ſhould deſtroy the effect of the water. Others will even put cloths dipt in the water upon the child, and either put it to bed, or ſuffer it to go about in that condition.

Every child when in health, ſhould at leaſt have its extremities daily waſhed in cold water. This is a partial uſe of the cold-bath, and is better than none. In winter this may ſuffice; but in the warm ſeaſon, if a child be relaxed, or ſeem to have a tendency to the rickets or ſchrophula, its whole body ought to be frequently immerſed in cold water. Care however muſt be taken not to do this when the body is hot, or the ſtomach full. The child ſhould be dipped only once at a time, ſhould be taken out immediately, and have its ſkin well rubbed with a dry cloth.

## *The Effects of unwholeſome Air upon Children.*

FEW things prove more deſtructive to children, than confined or unwholeſome air. This is one reaſon why ſo few of thoſe infants, who are put into hoſpitals, or pariſh work-houſes, live. Theſe places are generally crowded with old, ſickly and infirm people; by which means the air is rendered ſo extremely pernicious, that it becomes a poiſon to infants.

Want of wholeſome air is likewiſe deſtructive to many of the children born in great towns. There the poorer ſort of inhabitants live in low, dirty, confined houſes, to which the freſh air has hardly any acceſs. Though grown people, who are hardy and robuſt, may live in ſuch ſituations, yet they generally prove fatal to their offſpring, few of whom arrive at maturity, and thoſe who do, are weak and deformed. As ſuch people are not in a condition to carry their children abroad in the open air, we muſt lay our account with loſing the greater part of them. But the rich have not this excuſe. It is their buſineſs to ſee that their children be daily carried abroad, and that they be kept in the open air for a ſufficient time. This will always ſucceed better if the mother goes along with them. Servants are often negligent in theſe matters, and allow a child to ſit or lie on the damp ground, inſtead of leading or carrying it about. The mother ſurely needs air as well as her children; and how can ſhe be better employed than in attending them?

A very bad cuſtom prevails, of making children ſleep in ſmall apartments, or crowding two or three beds into one chamber. Inſtead of this, the nurſery ought always to be the largeſt and beſt aired room in the houſe. When children are confined in ſmall apartments, the air not only becomes unwholeſome, but the heat relaxes their ſolids, renders them delicate, and diſpoſes them to colds and many other diſorders. Nor is the cuſtom of wrapping them up too cloſe in cradles, leſs pernicious. One would think that nurſes were afraid leſt children ſhould ſuffer by breathing free air, as many of them actually cover the child's face while aſleep, and others wrap a covering over the whole cradle, by which means, the child is forced to breathe the ſame air over and over, all the time it ſleeps. Cradles indeed are on many accounts hurtful to children, and it would be better if the uſe of them were totally laid aſide†.

A child is generally laid to ſleep with all its clothes on; and if a number of others are heaped above them, it muſt be overheated; by which means it cannot fail to catch cold on being taken out of the cradle, and expoſed to the open air, with only its uſual clothing, which is too frequently the caſe.

Children who are kept within doors all day, and ſleep all night in warm cloſe apartments, may, with great propriety, be compared to plants, nurſed in a hot-houſe, inſtead of the open air. Though ſuch plants may, by this means, be kept alive for ſome time, they will never arrive at that degree of ſtrength, vigour and magnitude, which they would have acquired in the open air, nor would they be able to bear it afterwards, ſhould they be expoſed to it.

Children, brought up in the country, who have been accuſtomed to open air, ſhould not be too early ſent to great towns, where it is confined and unwholeſome. This is frequently done with a view to forward their education, but proves very hurtful to their health. All ſchools and ſeminaries of learning ought, if poſſible, to be ſo ſituated as to have freſh, dry, wholeſome air, and ſhould never be too much crowded.

Without entering into a detail of the particular advantages of wholeſome air to children, or of the bad conſequences which proceed from the want of it, I ſhall only obſerve, that, of ſeveral thouſands of children that have been under my care, I do not remember one inſtance of a ſingle child, who continued healthy in a cloſe confined ſituation; but have often known the moſt obſtinate diſeaſes cured by removing them from ſuch a ſituation to an open free air.

† It is amazing how children eſcape ſuffocation, conſidering the manner in which they are often rolled up in flannels, &c. I lately attended an infant, whom I found muffled up over head and ears in many folds of flannel, though it was in the middle of June. I begged for a little free air to the poor babe; but though this indulgence was granted during my ſtay, I found it always on my return in the ſame ſituation. Death ſoon freed the infant from all its miſeries; but it was not in my power to free the minds of its parents from thoſe prejudices which proved fatal to their child.

## *Of Nurſes.*

IT is not here intended to lay down rules for the choice of nurſes. This would be waſting time. Common ſenſe will direct every one to chooſe a woman who is healthy, and has plenty of milk*. If ſhe be at the ſame time cleanly, careful, and good-natured, ſhe can hardly fail to make a proper nurſe†. After all, however, the only certain proof of a good nurſe, is a healthy child upon her breaſt. But, as the miſconduct of nurſes often proves fatal to children, it will be of importance to point out a few of their moſt baneful errors, in order to rouſe the attention of parents, and to make them look more ſtrictly into the conduct of thoſe to whom they commit the care of their infant offspring.

Though it admits of ſome exceptions, yet, we may lay it down as a general rule, that every woman who nurſes for hire ought to be carefully looked after, otherwiſe ſhe will not do her duty. For this reaſon, parents ought always to have their children nurſed under their own eye, if poſſible; and where this cannot be done, they ſhould be extremely circumſpect in the choice of thoſe perſons to whom they intruſt them. It is folly to imagine that any woman, who abandons her own child to ſuckle another for the ſake of gain, ſhould feel all the affections of a parent towards her nurſling; yet ſo neceſſary are theſe affections in a nurſe, that, but for them, the human race would be extinct.

One of the moſt common faults of thoſe who nurſe for hire, is to doſe children with ſtupefactives, or ſuch things as lull them aſleep. An indolent nurſe, who does not give a child ſufficient exerciſe in the open air to make it ſleep, and does not chooſe to be diſturbed by it in the night, will ſeldom fail to procure for it a doſe of laudanum, diacodium, ſaffron, or, what anſwers the ſame purpoſe, a dram of ſpirits, or other ſtrong liquors. Theſe, though they be certain poiſon to infants, are every day adminiſtered by many who bear the character of very good nurſes‡.

A nurſe who has not milk enough, is apt to imagine that this defect may be ſupplied by giving the child wines, cordial-waters, or other ſtrong liquors. This is an egregious miſtake. The only thing that has any chance to ſupply the place of the nurſe's milk, muſt be ſomewhat nearly of the ſame quality, as cow's milk, aſs's milk,

* I have often known people ſo impoſed upon, as to give an infant to a nurſe to be ſuckled who had not one drop of milk in her breaſt.

† In addition to theſe qualifications, ſhe ſhould be clear of any deformity about her eyes, ſuch as ſquinting, &c. as children are very liable to contract unpleaſant habits from their nurſes. (I. C.)

‡ If a mother on viſiting her child at nurſe finds it always aſleep, I would adviſe her to remove it immediately; otherwiſe, it will ſoon ſleep its laſt.

or the like, with good bread. It never can be done by the help of ſtrong liquors. Theſe, inſtead of nouriſhing an infant, never fail to produce the contrary effect.

Children are often hurt by nurſes ſuffering them to cry long and vehemently. This ſtrains their tender bodies, and frequently occaſions ruptures, inflammations of the throat, lungs, &c. A child never continues to cry long without ſome cauſe, which might always be diſcovered by proper attention; and the nurſe who can hear an infant cry till it has almoſt ſpent itſelf, without endeavouring to pleaſe it, muſt be cruel indeed, and is unworthy to be intruſted with the care of an human creature.

Nurſes who deal much in medicine are always to be ſuſpected. They truſt to it, and neglect their duty. I never knew a good nurſe who had her Godfrey's cordials, Daffy's elixirs, &c. at hand. Such generally imagine, that a doſe of medicine will make up for all defects in food, air, exerciſe and cleanlineſs.

Allowing children to continue long wet, is another very pernicious cuſtom of indolent nurſes. This is not only diſagreeable, but it galls and frets the infant, and by relaxing the ſolids, occaſions ſchrophulas, rickets, and other diſeaſes. A dirty nurſe is always to be ſuſpected.

Nature often attempts to free the bodies of children from bad humours, by throwing them upon the ſkin: By this means fevers and other diſeaſes are prevented. Nurſes are apt to miſtake ſuch critical eruptions for an itch, or ſome other infectious diſorder. Accordingly, they take every method to drive them in. In this way many children loſe their lives; as nature is oppoſed in the very method that ſhe takes to relieve them. A nurſe ſhould never ſtop any eruption without proper advice, or being well aſſured that it is not of a critical nature. At any rate, it is never to be done without previous evacuations.

Looſe ſtools are another method by which nature often prevents or carries off the diſeaſes of infants. If theſe proceed too far, they ought to be checked; but never without great caution. Nurſes, upon the firſt appearance of looſe ſtools, frequently fly to the uſe of aſtringents, or ſuch things as bind the body. Hence inflammatory fevers, and other fatal diſeaſes, are occaſioned. A doſe of rhubarb, a gentle vomit, or ſome other evacuation, ſhould always precede the uſe of aſtringent medicines*.

One great fault of nurſes is, concealing the diſeaſes of children from their parents. This they are extremely ready to do, eſpecially when the diſeaſe is the effect of their own negligence. Many in-

* Some nurſes are ſo extremely nice, that rather than take the trouble of cleanſing a child frequently, they will attempt to ſtop up the paſſage: Squeamiſh maids have actually uſed corks for this purpoſe. What have not mothers to fear, who intruſt their children to the care of ſuch worthleſs drabs?

ſtances might be given of perſons who have been rendered lame for life by a fall from their nurſe's arms, which ſhe through fear, concealed till the misfortune was paſt cure. Every parent who intruſts a nurſe with the care of a child, ought to give her the ſtricteſt charge not to conceal the moſt trifling diſorder or misfortune that may befal it.

We can ſee no reaſon, why a nurſe, who conceals any misfortune which happens to a child under her care, till it loſes its life or limbs, ſhould not be puniſhed. A few examples of this kind would ſave the lives of many infants; but as there is little reaſon to expect that it will ever be the caſe, we would earneſtly recommend it to all parents to look carefully after their children, and not to truſt ſo valuable a treaſure entirely in the hands of an hireling.

No perſon ought to imagine theſe things unworthy of his attention. On the proper management of children depend not only their health and uſefulneſs in life, but likewiſe the ſafety and proſperity of the ſtate to which they belong. Effeminacy ever will prove the ruin of any ſtate where it prevails; and, when its foundations are laid in infancy, it can never arterwards be wholly eradicated. Parents who love their offſpring, and wiſh well to their country, will, in the management of their children, avoid every thing that tends to make them weak or effeminate, and take every method in their power to render their conſtitutions ſtrong and hardy.

—— By arts like theſe
Laconia nurs'd of old her hardy ſons;
And Rome's unconquer'd legions urg'd their way,
Unhurt, thro' every toil in every clime. *Armſtrong.*

## CHAPTER II.

### *Of the Laborious, the Sedentary, and the Studious.*

MEN are expoſed to particular diſeaſes from the occupations which they follow; but to remedy this evil is difficult. Moſt people are under the neceſſity of following thoſe employments to which they have been bred, whether they be favourable to health or not. Inſtead of inveighing, as ſome authors have done, againſt thoſe occupations which are hurtful to health, we ſhall endeavour to point out the circumſtances in each of them from which the danger chiefly ariſes, and to propoſe the moſt rational methods of preventing it.

Chemiſts, founders, forgers, glaſs-makers, and ſeveral other artiſts, are hurt by the unwholeſome air which they are obliged to breathe. This air is not only loaded with the noxious exhalations

ariſing from metals and minerals, but is ſo charged with phlogiſton as to be rendered unfit for expanding the lungs ſufficiently, and anſwering the other important purpoſes of reſpiration. Hence proceed aſthmas, coughs, and conſumptions of the lungs, ſo incident to perſons who follow theſe employments.

To prevent ſuch conſequences, as far as poſſible, the places where theſe occupations are carried on, ought to be conſtructed in ſuch a manner as to diſcharge the ſmoke and other exhalations, and admit a free current of freſh air. Such artiſts ought never to continue too long at work; and when they give over, they ſhould ſuffer themſelves to cool gradually, and put on their clothes before they go into the open air. They ought never to drink large quantities of cold, weak, or watery liquors, while their bodies are hot, nor to indulge in raw fruits, ſallads, or any thing that is cold on the ſtomach.

Miners, and all who work under ground, are likewiſe hurt by unwholeſome air. The air, by its ſtagnation in deep mines, not only loſes its proper ſpring and other qualities neceſſary for reſpiration, but is often loaded with ſuch noxious exhalations as to become a moſt deadly poiſon.

The two kinds of air which prove moſt deſtructive to miners, are what they call the fire damp, and the choke damp. In both caſes the air becomes a poiſon, by its being loaded with phlogiſton.

The danger from the former may be obviated by making it explode before it accumulates in too great quantities; and the latter may be generally carried off by promoting a free circulation of air in the mine.

Miners are not only hurt by unwholeſome air, but likewiſe by the particles of metal which adhere to their ſkin, clothes, &c. Theſe are abſorbed, or taken up into the body, and occaſion palſies, vertigoes, and other nervous affections, which often prove fatal. Fallopius obſerves, that thoſe who work in mines of mercury, ſeldom live above three or four years. Lead, and ſeveral other metals, are likewiſe very pernicious to the health.

Miners ought never to go to work faſting, nor to continue too long at work. Their food ought to be nouriſhing, and their liquor generous: Nothing more certainly hurts them than living too low. They ſhould by all means avoid coſtiveneſs. This may either be done by chewing a little rhubarb, or taking a ſufficient quantity of ſallad oil. Oil not only opens the body, but ſheaths and defends the inteſtines from the ill effects of the metals. All who work in mines or metals ought to waſh carefully, and to change their clothes as ſoon as they give over working. Nothing would tend more to preſerve the health of ſuch people than a ſtrict regard to cleanlineſs.

Plumbers, painters, gilders, ſmelters, makers of white-lead, and many others who work in metals, are liable to the ſame diſeaſes as miners, and ought to obſerve the ſame directions for avoiding them.

Tallow-chandlers, boilers of oil, and all who work in putrid ani-

mal ſubſtances, are likewiſe liable to ſuffer from the unwholeſome ſmells or effluvia of theſe bodies. They ought to pay the ſame regard to cleanlineſs as miners; and when they are affected with naufea, ſickneſs, or indigeſtion, we would adviſe them to take a vomit or a gentle purge. Such ſubſtances ought always to be manufactured as ſoon as poſſible. When long kept, they not only become unwholeſome to thoſe who manufacture them, but likewiſe to people who live in the neighbourhood.

It would greatly exceed the limits of this part of our ſubject, to ſpecify the diſeaſes peculiar to perſons of every occupation; we ſhall therefore conſider mankind under the general claſſes of Laborious, Sedentary, and Studious.

## *The Laborious.*

THOUGH thoſe who follow laborious employments are in general the moſt healthy of mankind, yet the nature of their occupations, and the places where they are carried on, expoſe them more particularly to ſome diſeaſes. Huſbandmen, for example, are expoſed to all the viciſſitudes of the weather, which in America, are often very great and ſudden, and occaſion colds, coughs, quinſies, rheumatiſms, fevers, and other acute diſorders. They work hard, and often carry burden above their ſtrength, which, by overſtraining the veſſels, occaſion aſthmas, ruptures, pleuriſies, &c.

Thoſe who labour without doors are often afflicted with intermitting fevers or agues, occaſioned by the frequent viciſſitudes of heat and cold, poor living, bad water, ſitting or lying on the damp ground, evening dews, night air, &c. to which they are frequently expoſed.

Such as bear heavy burdens, as porters, labourers, &c. are obliged to draw in the air with much greater force, and alſo to keep their lungs diſtended with more violence than is neceſſary for common reſpiration: By this means the tender veſſels of the lungs are over-ſtretched, and often burſt, inſomuch that a ſpitting of blood or fever enſues. Hippocrates mentions an inſtance of a man, who, upon a wager, carried an aſs; but was ſoon after ſeized with a fever, a vomiting of blood, and a rupture.

Carrying heavy burdens is generally the effect of mere lazineſs, which prompts people to do at once what ſhould be done at twice. Sometimes it proceeds from vanity or emulation. Hence it is, that the ſtrongeſt men are moſt commonly hurt by heavy burdens, hard labour, or feats of activity. It is rare to find one who boaſts of his ſtrength, without a rupture, a ſpitting of blood, or ſome other diſeaſe, which he reaps as the fruit of his folly. One would imagine the daily inſtances we have of the fatal effects of carrying great

weights, running, wreſtling, and the like, would be ſufficient to prevent ſuch practices.

There are indeed ſome employments which neceſſarily require a great exertion of ſtrength, as porters, blackſmiths, carpenters, &c. None ought to follow theſe but men of ſtrong body; and they ſhould never exert their ſtrength to the utmoſt, nor work too long. When the muſcles are violently ſtrained, frequent reſt is neceſſary, in order that they may recover their tone; without this, the ſtrength and conſtitution will ſoon be worn out, and a premature old age be induced.

The eriſipelas, or St. Anthony's fire, is a diſeaſe very incident to the laborious. It is occaſioned by whatever gives a ſudden check to the perſpiration, as drinking cold water when the body is warm, wet feet, keeping on wet clothes, ſitting or lying on the damp ground, &c. It is impoſſible for thoſe who labour without doors always to guard againſt theſe inconveniencies; but it is known from experience, that their ill conſequences might often be prevented by proper care.

The iliac paſſion, the cholic, and other complaints of the bowels, are often occaſioned by the ſame cauſes as the eriſipelas; but they may likewiſe proceed from flatulent and indigeſtible food. Labourers generally eat unfermented bread, and great quantities of unripe fruits, baked, ſtewed, or raw, with various kinds of roots and herbs, upon which they often drink ſour milk, ſtale ſmall beer, or the like. Such a mixture cannot fail to fill the bowels with wind, and occaſion diſeaſes of thoſe parts.

Inflammations, whitloes, and other diſeaſes of the extremities, are likewiſe common among thoſe who labour without doors. Theſe diſeaſes are often attributed to venom, or ſome kind of poiſon; but they generally proceed either from ſudden heat after cold, or the contrary. When labourers, milk-maids, &c. come from the field, cold or wet, they run to the fire, and often plunge their hands in warm water, by which means the blood and other humours in thoſe parts, are ſuddenly expanded, and, the veſſels not yielding ſo quickly, a ſtrangulation happens, and an inflammation or mortification enſues.

When ſuch perſons come home cold, they ought to keep at a diſtance from the fire for ſome time, to waſh their hands in cold water, and to rub them well with a dry cloth. It ſometimes happens, that people are ſo benumbed with cold, as to be quite deprived of the uſe of their limbs. In this caſe, the only remedy is to rub the parts affected with ſnow, or, where it cannot be had, with cold water. If they be held near the fire, or plunged into warm water, a mortification will generally enſue.

Labourers in the hot ſeaſon are apt to lie down and ſleep in the ſun. This practice is ſo dangerous, that they often wake in a burning fever. Theſe ardent fevers, which prove ſo fatal about the end of ſummer and beginning of autumn, are frequently occaſioned by

this means. When labourers leave off work, which they ought always to do during the heat of the day, they ſhould go home, or, at leaſt, get under ſome cover, where they may repoſe themſelves in ſafety.

Many people follow their employments in the fields from morning till night, without eating any thing. This cannot fail to hurt their health. However homely their fare be, they ought to have it at regular times; and the harder they work, the more frequently they ſhould eat. If the humours be not frequently repleniſhed with freſh nouriſhment, they ſoon become putrid, and produce fevers of the very worſt kind.

Many peaſants are extremely careleſs with reſpect to what they eat or drink, and often, through mere indolence, uſe unwholeſome food, when they might for the ſame expenſe have that which is wholeſome. In ſome parts of Britain, the peaſants are too careleſs even to take the trouble of dreſſing their own victuals. Such people would live upon one meal a-day in indolence, rather than labour, though it were to procure them the greateſt affluence.

Fevers of a very bad kind are often occaſioned among labourers by poor living. When the body is not ſufficiently nouriſhed, the ſolids become weak; from whence the moſt fatal conſequences enſue. Poor living is likewiſe productive of many of thoſe cutaneous diſeaſes ſo frequent among the lower claſs of people. It is remarkable that cattle, when pinched in their food, are generally affected with diſeaſes of the ſkin, which ſeldom fail to diſappear, when they are put upon a good paſture. This ſhows how much a good ſtate of the humours depends upon a ſufficient quantity of proper nouriſhment.

Poverty not only occaſions, but aggravates, many of the diſeaſes of the laborious. Few of them have much foreſight; and, if they had, it is ſeldom in their power to ſave any thing. They are glad to make a ſhift to live from day to day; and, when any diſeaſe overtakes them, they are miſerable indeed. Here, the godlike virtue of charity ought always to exert itſelf. To relieve the induſtrious poor in diſtreſs, is ſurely the moſt exalted act of religion and humanity. They alone, who are witneſſes of thoſe ſcenes of calamity, can form an opinion of what numbers periſh in diſeaſes, for want of proper aſſiſtance, and even for want of the neceſſaries of life.

Labourers are often hurt by an emulation, which prompts them to vie with one another, till they overheat themſelves to ſuch a degree as to occaſion a fever, or even to drop down dead. Such as wantonly throw away their lives in this manner, deſerve to be looked upon as ſelf-murderers.

Soldiers ſuffer many hardſhips from the inclemency of ſeaſons, long marches, bad proviſions, hunger, watching, unwholeſome climates, bad water, &c. Theſe occaſion fevers, fluxes, rheumatiſms, and other fatal diſeaſes, which generally do greater execution than the ſword, eſpecially when campaigns are continued too late in

the ſeaſon. A few weeks of cold rainy weather will often prove more fatal than an engagement.

Thoſe who have the command of armies ſhould take care that their ſoldiers be well clothed and well fed. They ought alſo to finiſh their campaigns in due ſeaſon, and to provide their men with dry and well-aired winter quarters. Theſe rules, taking care, at the ſame time, to keep the ſick at a proper diſtance from thoſe in health, would tend greatly to preſerve the lives of the ſoldiery.

Sailors may be numbered among the laborious. They undergo great hardſhips from change of climate, the violence of weather, hard labour, bad proviſions, &c. Sailors are of ſo great importance to the trade of a nation, that too much pains can never be beſtowed in pointing out the means of preſerving their lives.

One great ſource of the diſeaſes of ſea-faring people is exceſs. When they get on ſhore, after having been long at ſea, without regard to the climate, or their own conſtitutions, they plunge headlong into all manner of riot, and often perſiſt till a fever puts an end to their lives. Thus, intemperance, and not the climate, is often the cauſe why ſo many of our ſailors die on foreign coaſts. Such people ought not to live too low; but they will find moderation the beſt defence againſt fevers, and many other maladies.

Sailors, when on duty, cannot avoid ſometimes getting wet. When this happens, they ſhould change their clothes as ſoon as they are relieved, and take every method to reſtore the perſpiration. They ſhould not in this caſe, make too free with ſpirits or other ſtrong liquors, but ſhould rather drink them diluted with warm water, and go immediately to bed, where a ſound ſleep and a gentle ſweat would ſet all to rights.

But the health of ſailors ſuffers moſt from unwholeſome food. The conſtant uſe of ſalted proviſions, with a ſcant allowance of bad, water debilitate their conſtitutions, occaſions the ſcurvy, and other obſtinate maladies. It is no eaſy matter to prevent this diſeaſe in long voyages; yet much might be done towards effecting ſo deſirable an end, were due pains beſtowed for that purpoſe. For example, various roots, greens, and fruits, might be kept a long time at ſea, as onions, potatoes, cabbages, lemons, oranges, tamarinds, apples, &c. When fruits cannot be kept, the juice of them, either freſh or fermented, may. With theſe, all the drink, and even the food of the ſhip's company, ought to be acidulated in long voyages.

Stale bread and beer likewiſe contribute to vitiate the humours. Flour will keep for a long time on board, of which freſh bread might frequently be made. Malt, too, might be kept, and infuſed with boiling water at any time. This liquor, when drank even in form of wort, is very wholeſome, and is found to be an antidote againſt the ſcurvy. Small wines and cyder might likewiſe be plentifully laid in; and ſhould they turn ſour, they would ſtill be uſeful as vinegar. Vinegar is a great antidote againſt diſeaſes, and

ſhould be uſed by all travellers, eſpecially at ſea. It may either be mixed with the water they drink, or taken in their food.

Such animals as can be kept alive, ought to be carried on board, as hens, ducks, pigs, &c. Freſh broths made of portable ſoup, and puddings made of peas, or other vegetables, ought to be uſed plentifully. Many other things will readily occur to people converſant in theſe matters, which would tend to preſerve the health of that brave and uſeful ſet of men*.

We have reaſon to believe, if due attention were paid to the diet, air, clothing, and above all things, to the cleanlineſs of ſeafaring people, they would be the moſt healthy ſet of men in the world; but when theſe are neglected, the very reverſe will happen.

The beſt medical antidote that we can recommend to ſailors or ſoldiers on foreign coaſts, eſpecially where dampneſs prevails, is the Peruvian bark. This will often prevent fevers and other fatal diſeaſes. About a drachm of it may be chewed every day, or if this ſhould prove diſagreeable, an ounce of bark, with half an ounce of orange-peel, and two drachms of ſnake-root coarſely powdered, may be infuſed two or three days in an Engliſh quart of brandy, and half a wine-glaſs of it taken twice or thrice a day, when the ſtomach is empty. This has been found to be an excellent antidote againſt fluxes, intermitting, and other fevers, in unhealthy climates. It is not material in what form this medicine is taken. It may either be infuſed in water, wine, or ſpirits, as recommended above, or made into an electuary with ſyrup of lemons, oranges, or the like.

## *The Sedentary.*

THOUGH nothing can be more contrary to the nature of man than a ſedentary life, yet this claſs comprehends by far the greater part of the ſpecies. Almoſt the whole female world, and in manufacturing countries, the major part of the males, may be reckoned ſedentary†.

* Captain Cook has ſhown how far, by proper care and attention, the diſeaſes formerly ſo fatal to ſeamen, may be prevented. In a voyage of three years and eighteen days, during which he was expoſed to every climate, from the 52° north to the 71° of ſouth latitude, of one hundred and eighteen men, compoſing the ſhip's company, he loſt only one, who died of a phthiſis pulmonalis. The principal means he uſed were, to preſerve a ſtrict attention to cleanlineſs, to procure abundance of vegetables and freſh proviſions, eſpecially good water, and to allow his people ſufficient time for reſt.

† The appellation of ſedentary has generally been given only to the ſtudious; we can ſee no reaſon, however, for reſtricting it to them alone. Many artificers may, with as much propriety, be denominated ſedentary as the ſtudious, with this particular diſadvantage, that they are often obliged to ſit in very awkward poſtures, which the ſtudious need not unleſs they pleaſe.

Agriculture, the firſt and moſt healthful of all employments, is now followed by few who are able to carry on any other buſineſs. But thoſe who imagine that the culture of the earth is not ſufficient to employ all its inhabitants, are greatly miſtaken. An ancient Roman, we are told, could maintain his family from the produce of one acre of ground. So might a modern Briton, if he would be contented to live like a Roman. This ſhows what an immenſe increaſe of inhabitants Britain might admit of, and all of them live by the culture of the ground.

Agriculture is the great ſource of domeſtic riches. Where it is neglected, whatever wealth may be imported from abroad, poverty and miſery will abound at home. Such is, and ever will be, the fluctuating ſtate of trade and manufactures, that thouſands of people may be in full employment to-day, and in beggary to-morrow. This can never happen to thoſe who cultivate the ground. They can eat the fruit of their labour, and can always by induſtry obtain, at leaſt, the neceſſaries of life.

Though ſedentary employments are neceſſary, yet there ſeems to be no reaſon why any perſon ſhould be confined for life to theſe alone. Were ſuch employments intermixed with the more active and laborious, they would never do hurt. It is conſtant confinement that ruins the health. A man will not be hurt by ſitting five or ſix hours a-day; but if he is obliged to ſit ten or twelve, he will ſoon become diſeaſed.

But it is not want of exerciſe alone which hurts ſedentary people; they likewiſe ſuffer from the confined air which they breathe. It is very common to ſee ten or a dozen taylors*, or ſtaymakers, for example, crowded into one ſmall apartment, where there is hardly room for one perſon to breathe freely. In this ſituation they generally continue for many hours at a time, often with the addition of ſundry candles, which tend likewiſe to waſte the air, and render it leſs fit for reſpiration. Air that is breathed repeatedly becomes unfit for expanding the lungs. This is one cauſe of the phthiſical coughs, and other complaints of the breaſt, ſo incident to ſedentary artificers.

Even the perſpiration from a great number of perſons pent up together, renders the air unwholeſome. The danger from this quarter will be greatly increaſed, if any one of them happens to have bad lungs, or to be otherwiſe diſeaſed. Thoſe who ſit near him, being forced to breathe the ſame air, can hardly fail to be infected. It would be a rare thing to find a dozen ſedentary people all in

* A perſon of obſervation in that line of life told me, that moſt taylors die of conſumptions; which he attributed chiefly to the unfavourable poſtures in which they ſit, and the unwholeſomeneſs of thoſe places where their buſineſs is carried on. If more attention was not paid to profit than to the preſervation of human lives, this evil might be eaſily remedied; but while maſters only mind their own intereſt, nothing will be done for the ſafety of their ſervants.

good health. The danger of crouding them together muſt therefore be evident to every one.

Many of thoſe who follow ſedentary employments are conſtantly in a bending poſture, as ſhoe-makers, taylors, cutlers, &c. Such a ſituation is extremely hurtful. A bending poſture obſtructs all the vital motions, and of courſe muſt deſtroy the health. Accordingly, we find ſuch artificers generally complaining of indigeſtions, flatulences, head-achs, pains of the breaſt, &c.

The aliment in ſedentary people, inſtead of being puſhed forwards by an erect poſture, and the action of the muſcles, is in a manner confined in the bowels. Hence, indigeſtions, coſtiveneſs, wind, &other hypocondriachal affections, are the companions of the ſedentary. No excretion can be duly performed where exercife is wanting; and when the matter which ought to be diſcharged in this way, is retained too long in the body, it muſt have bad effects, as it is again taken up into the maſs of humours.

A bending poſture is hurtful to the lungs. When this organ is compreſſed, the air cannot have free acceſs into all its parts, ſo as to expand them properly. Hence tubercles, adheſions, &c. are formed, which often end in conſumptions. Beſides, the proper action of the lungs being abſolutely neceſſary for making good blood, when that organ fails, the humours ſoon become univerſally depraved, and the whole conſtitution goes to wreck.

Sedentary artificers are not only hurt by preſſure on the bowels, but alſo on the inferior extremities, which obſtructs the circulation in thoſe parts, and renders them weak and feeble. Thus, taylors, ſhoe-makers, &c. frequently loſe the uſe of their legs altogether; beſides, the blood and humours are, by ſtagnation, vitiated, and the perſpiration is obſtructed: From whence proceed the ſcab, ulcerous ſores, foul blotches, and other cutaneous diſeaſes, ſo common among ſedentary artificers.

A bad figure of body is a very common conſequence of cloſe application to ſedentary employments. The ſpine, for example, by being continually bent, puts on a crooked ſhape, and generally remains ſo ever after. But a bad figure of body has already been obſerved to be hurtful to health, as the vital functions are thereby impeded.

A ſedentary life ſeldom fails to occaſion an univerſal relaxation of the ſolids. This is the great ſource from whence moſt of the diſeaſes of ſedentary people flow. The ſchrophula, conſumption, hyſterics, and nervous diſeaſes, now ſo common, were very little known in this country before ſedentary artificers became ſo numerous: And they are very little known ſtill among ſuch of our people as follow active employments without doors, though in great towns, at leaſt two thirds of the inhabitants are afflicted with them.

It is very difficult to remedy thoſe evils, becauſe many who have been accuſtomed to a ſedentary life, like ricketty children, loſe all inclination for exerciſe; we ſhall throw out a few hints with reſpect

to the moſt likely means for preſerving the health of this uſeful ſet of people.

Sedentary artificers are often hurt by their bending poſture. They ought to ſtand or ſit as erect as the nature of their employments will permit. They ſhould change their poſture frequently, and never ſit too long at a time, but leave off work, and walk, ride, run, or do any thing that will promote the vital functions.

Sedentary artificers are generally allowed too little time for exerciſe; yet, ſhort as it is, they ſeldom employ it properly. A journeyman taylor or weaver, for example, inſtead of walking abroad for exerciſe and freſh air, at his hours of leiſure, chooſes often to ſpend them in a public-houſe, or in playing at ſome ſedentary game, by which he generally loſes both his time and his money.

The awkward poſtures in which many ſedentary artificers work, ſeem rather to be the effect of cuſtom than neceſſity. For example, a table might ſurely be contrived for ten or a dozen taylors to ſit round, with liberty for their legs either to hang down, or reſt upon a foot-board, as they ſhould chooſe. A place might be cut out for each perſon, in ſuch a manner that he might ſit as conveniently for working as in the preſent mode of ſitting croſs-legged.

All ſedentary artificers ought to pay the moſt religious regard to cleanlineſs. Both their ſituation and occupation render this highly neceſſary. Nothing would contribute more to preſerve their health, than a ſtrict attention to it; and ſuch of them as neglect it, not only run the hazard of loſing health, but of becoming a nuiſance to their neighbours.

Sedentary people ought to avoid food that is windy, or hard of digeſtion, and pay the ſtricteſt regard to ſobriety. A perſon who works hard without doors will ſoon throw off a debauch; but one who ſits has by no means an equal chance. Hence ſedentary people are often ſeized with fevers after hard drinking. When ſuch perſons feel their ſpirits low, inſtead of running to the tavern for relief, they ſhould ride, or walk in the fields. This would remove the complaint more effectually than ſtrong liquor, and would never hurt the conſtitution.

We ſhall recommend the following general plan, viz. That every perſon who follows a ſedentary employment ſhould cultivate a piece of ground with his own hands. This he might dig, plant, ſow, and weed at leiſure hours, ſo as to make it both an exerciſe and amuſement, while it produced many of the neceſſaries of life. After working an hour in a garden, a man will return with more keenneſs to his employment within doors, than if he had been all the while idle.

Labouring the ground is every way conducive to health. It not only gives exerciſe to every part of the body, but the very ſmell of the earth and freſh herbs revives and cheers the ſpirits, whilſt the perpetual proſpect of ſomething coming to maturity, delights and entertains the mind. We are always pleaſed with ſomewhat in proſ-

pect, however distant or trivial. Hence the happiness that most men feel in planting, sowing, building, &c. These seem to have been the chief employments of the more-early ages: And when kings and conquerors cultivated the ground, there is reason to believe, they knew as well wherein true happiness consisted as we do.

It may seem romantic to recommend gardening to manufacturers in great towns; the plan is very practicable. In Sheffield, where the great iron manufacture is carried on, there is hardly a journeyman cutler who does not possess a piece of ground, which he cultivates as a garden. This practice has many salutary effects. It not only induces these people to take exercise without doors, but also to eat many greens, roots, &c. of their own growth, which they would never think of purchasing. There can be no reason why manufacturers in any other towns of Britain should not follow the same plan. In London, a plan of this kind is not practicable; yet even there, sedentary artificers may find opportunities of taking air and exercise, if they choose to embrace them.

Mechanics are too much inclined to crowd into great towns. The situation may have some advantages; but it has many disadvantages. All mechanics who live in the country have it in their power to cultivate a piece of ground; which, indeed, most of them do. This not only gives them exercise, but enables them to live more comfortably. So far at least as my observation extends, mechanics who live in the country are far more happy than those in great towns. They enjoy better health, live in greater affluence, and seldom fail to rear a healthy and numerous offspring.

In a word, exercise without doors, in one shape or another, is absolutely necessary to health. Those who neglect it, though they may for a while drag out life, can hardly be said to enjoy it. Weak and effeminate, they languish for a few years, and soon drop into an untimely grave.

## *The Studious.*

INTENSE thinking is so destructive to health, that few instances can be produced of studious persons who are strong and healthy. Hard study always implies a sedentary life; and when intense thinking is joined to the want of exercise, the consequence must be bad. We have frequently known even a few months of close application to study, ruin an excellent constitution, by inducing a train of nervous complaints which could never be removed. Man is evidently not formed for continual thought more than for perpetual action, and would be as soon worn out by the one as by the other.

So great is the power of the mind over the body, that, by its influence the whole vital motions may be accelerated or retarded,

to almoſt any degree. Thus cheerfulneſs and mirth quicken the circulation, and promote all the ſecretions; ſadneſs and profound thought retard them. Hence, even a degree of thoughtleſſneſs is neceſſary to health. The perpetual thinker ſeldom enjoys either health or ſpirits; while the perſon who can hardly be ſaid to think at all, generally enjoys both.

Perpetual thinkers, as they are called, ſeldom think long. In a few years they generally become quite ſtupid, and exhibit a melancholy proof how readily the greateſt bleſſings may be abuſed. Thinking, like every thing elſe, when carried to an extreme, becomes a vice: nor can any thing afford a greater proof of wiſdom, than for a man frequently and ſeaſonably to unbend his mind. This may generally be done by mixing in cheerful company, active diverſions, or the like.

Inſtead of attempting to inveſtigate the nature of that connexion which ſubſiſts between the mind and body, or to enquire into the manner in which they mutually affect each other, we ſhall only mention thoſe diſeaſes to which the learned are more peculiarly liable, and endeavour to point out the means of avoiding them.

Studious perſons are very ſubject to the gout. This painful diſeaſe in a great meaſure proceeds from indigeſtion, and an obſtructed perſpiration. It is impoſſible that the man who ſits from morning till night ſhould either digeſt his food, or have any of the ſecretions in due quantity. But when that matter, which ſhould be thrown off by the ſkin, is retained in the body, and the humours are not duly prepared, diſeaſes muſt enſue.

The ſtudious are likewiſe very liable to the ſtone and gravel. Exerciſe greatly promotes both the ſecretion and diſcharge of urine; a ſedentary life muſt have the contrary effect. Any one may be ſatisfied of this by obſerving, that he paſſes much more urine by day than in the night, and alſo when he walks or rides, than when he ſits.

The circulation in the liver being ſlow, obſtructions in that organ can hardly fail to be the conſequence of inactivity. Hence, ſedentary people are frequently afflicted with ſchirrous livers. But the proper ſecretion and diſcharge of the bile is ſo neceſſary a part of the animal economy, that where theſe are not duly performed, the health muſt ſoon be impaired. Jaundice, indigeſtion, loſs of appetite, and a waſting of the whole body, ſeldom fail to be the conſequences of a vitiated ſtate of the liver, or obſtructions of the bile.

Few diſeaſes prove more fatal to the ſtudious than conſumptions of the lungs. This organ cannot be duly expanded in thoſe who do not take proper exerciſe; and where that is the caſe, obſtructions and adheſions will enſue. Not only want of exerciſe, but the poſture in which ſtudious perſons generally ſit, is very hurtful to the lungs. Thoſe who read or write much are ready to contract a habit of bending forwards, and often preſs with their breaſt upon a table or bench. This poſture hurts the lungs.

The functions of the heart may likewiſe by this means be injured. I remember to have ſeen a man opened, whoſe pericardium adhered to the breaſt-bone, in ſuch a manner, as to obſtruct the motion of the heart, and occaſion his death. The only probable cauſe that could be aſſigned for this ſingular ſymptom was, that the man, whoſe buſineſs was writing, uſed conſtantly to ſit in a bending poſture, with his breaſt preſſing upon the edge of a flat table.

No perſon can enjoy health who does not properly digeſt his food. But intenſe thinking and inactivity never fail to weaken the powers of digeſtion. Hence the ſolids become weak and relaxed, and the whole conſtitution goes to ruin.

Long and intenſe thinking often occaſions grievous head-achs, which bring on vertigoes, apoplexies, palſies, and other fatal diſorders. The beſt way to prevent theſe is, never to ſtudy too long at one time, and to keep the body regular, either by proper food, or taking frequently a little of ſome opening medicine.

Thoſe who read or write much are often afflicted with ſore eyes. Studying by candle-light is peculiarly hurtful to the ſight. This ought to be practiſed as ſeldom as poſſible. When it is unavoidable, the eyes ſhould be ſhaded, and the head ſhould not be held too low. When the eyes are weak or painful, they ſhould be bathed every night and morning in cold water, to which a little brandy may be added.

The excretions are very defective in the ſtudious. The dropſy is often occeaſioned by the retention of thoſe humours which ought to be carried off in this way. Any perſon may obſerve, that ſitting makes his legs ſwell, and that this goes off by exerciſe; which clearly points out the method of prevention.

Fevers, eſpecially of the nervous kind, are often the effect of ſtudy. Nothing affects the nerves ſo much as intenſe thought. It in a manner unhinges the whole human frame, and not only hurts the vital motions, but diſorders the mind itſelf. Hence a delirium, melancholy, and even madneſs, are often the effect of cloſe application to ſtudy. There is no diſeaſe which can proceed from a defect of the uſual ſecretions, or a debility of the nervous ſyſtem, which may not be induced by intenſe thinking.

But the moſt afflicting of all the diſeaſes which attack the ſtudious is the hypochondriac. This diſeaſe ſeldom fails to be the companion of deep thought. It may rather be called a complication of maladies than a ſingle one. To what a wretched condition are the beſt of men often reduced by it! Their ſtrength and appetite fail; a perpetual gloom hangs over their minds; they live in the conſtant dread of death, and are continually in ſearch of relief from medicine, where it is not to be found. Thoſe who labour under this diſorder, though they are often made the ſubject of ridicule, juſtly claim our higheſt ſympathy.

Hardly any thing can be more prepoſterous than for a perſon to make ſtudy his ſole buſineſs. A mere ſtudent is ſeldom an uſe-

ful member of society. He often neglects the most important duties of life, in order to pursue studies of a very trifling nature. It rarely happens, that any useful invention is the effect of mere study. The farther men dive into profound researches, they generally deviate the more from common sense, and too often lose sight of it altogether. Profound speculations, instead of making men wiser or better, generally render them absolute sceptics, and overwhelm them with doubt and uncertainty. All that is necessary for man to know, in order to be happy, is easily obtained; and the rest, like the forbidden fruit, serves only to increase his misery.

Studious persons, in order to relieve their minds, must not only discontinue to read and write, but engage in some employment or diversion, that will so far occupy the thought as to make them forget the business of the closet. A solitary ride or walk are so far from relaxing the mind, that they rather encourage thought. Nothing can divert the mind, when it gets into a train of serious thinking, but attention to subjects of a more trivial nature. These prove a kind of play to the mind, and consequently relieve it.

Learned men often contract a contempt for what they call trifling company. They are ashamed to be seen with any but philosophers. This is no proof of their being so. No man deserves that name who is ashamed to unbend his mind, by associating with the cheerful and gay. Even the society of children will relieve the mind, and expel the gloom which application to study is too apt to occasion.

As studious people are necessarily much within doors, they should make choice of a large and well-aired place for study. This would not only prevent the bad effects which attend confined air, but would cheer the spirits, and have a most happy influence both on the body and mind. It is said of Euripides, that he used to retire to a dark cave to compose his tragedies, and of Demosthenes, that he chose a place for study where nothing could be either heard or seen. With all deference to such venerable names, we cannot help condemning their taste. A man may surely think to as good purpose in an elegant apartment as in a cave; and may have as happy conceptions where the all-cheering rays of the sun render the air wholesome, as in places where they never enter.

Those who read or write much should be very attentive to their posture. They ought to sit and stand by turns, always keeping as nearly in an erect posture as possible. Those who dictate may do it walking. It has an excellent effect frequently to read or speak aloud. This not only exercises the lungs, but almost the whole body. Hence studious people are greatly benefited by delivering discourses in public. Public speakers, indeed, sometimes hurt themselves by overacting their part; but this is their own fault. The martyr to mere vociferation merits no sympathy.

The morning has been reckoned the best time for study. It is so. But it is also the most proper season for exercise, while the sto-

mach is empty, and the ſpirits refreſhed with ſleep. Studious people ſhould ſometimes ſpend the morning in walking, riding, or ſome manly diverſions without doors. This would make them return to ſtudy with greater alacrity, and would be of more ſervice than twice the time after their ſpirits are worn out with fatigue. It is not ſufficient to take diverſion only when we can think no longer. Every ſtudious perſon ſhould make it a part of his buſineſs, and ſhould let nothing interrupt his hours of recreation more than thoſe of ſtudy.

Muſic has a very happy effect in relieving the mind when fatigued with ſtudy. It would be well if every ſtudious perſon were ſo far acquainted with that ſcience as to amuſe himſelf after ſevere thought, by playing ſuch airs as have a tendency to raiſe the ſpirits, and inſpire cheerfulneſs and good humour.

It is a reproach to learning, that any of her votaries, to relieve the mind after ſtudy, ſhould betake themſelves to the uſe of ſtrong liquors. This indeed is a remedy; but it is a deſperate one, and always proves deſtructive. Would ſuch perſons, when their ſpirits are low, get on horſeback, and ride ten or a dozen miles, they would find it a more effectual remedy, than any cordial medicine, or ſtrong liquors.

The following is my plan, and I cannot recommend a better to others. When my mind is fatigued with ſtudy, or other ſerious buſineſs, I mount my horſe, and ride ten or twelve miles into the country, where I ſpend a day, and ſometimes two, with a cheerful friend; after which I never fail to return to town with new vigour, and to purſue my ſtudies or buſineſs with freſh alacrity.

It is to be regretted, that learned men, while in health, pay ſo little regard to theſe things! There is not any thing more common than to ſee a miſerable object over-run with nervous diſeaſes, bathing, walking, riding, and doing every thing for health after it is gone; yet, if any one had recommended theſe things to him by way of prevention, the advice would, in all probability, have been treated with contempt, or at leaſt, with neglect. Such is the weakneſs and folly of mankind, and ſuch the want of foreſight, even in thoſe who ought to be wiſer than others.

With regard to the diet of the ſtudious, we ſee no reaſon why they ſhould abſtain from any kind of food that is wholeſome, provided they uſe it in moderation. They ought, however, to be ſparing in the uſe of every thing that is ſour, windy, rancid, or hard of digeſtion. Their ſuppers ſhould always be light, or taken ſoon in the evening. Their drink may be water, fine malt-liquor, not too ſtrong, good cyder, wine and water, or, if troubled with acidities, water mixed with a little brandy, rum, or any other genuine ſpirit.

With regard to thoſe kinds of exerciſe which are moſt proper for the ſtudious, they ſhould not be too violent, nor carried to exceſſive fatigue. They ought to be frequently varied ſo as to give action to all the different parts of the body; and ſhould, as often as

poſſible, be taken in the open air. In general, riding on horſeback, walking, working in a garden, or playing at ſome active diverſions, are the beſt.

We recommend the uſe of the cold-bath to the ſtudious. It will, in ſome meaſure, ſupply the place of exerciſe, and ſhould not be neglected by perſons of a relaxed habit, eſpecially in a warm ſeaſon.

No perſon ought either to take violent exerciſe, or to ſtudy immediately after a full meal.

## CHAPTER III.

### *Of Aliment.*

UNWHOLESOME food, and irregularities in diet, occaſion many diſeaſes. There is no doubt but the whole conſtitution of body may be changed by diet alone. The ſolids may be braced or relaxed, have their ſenſibility, motion, &c. greatly increaſed or diminiſhed, by different kinds of aliment. A very ſmall attention to theſe things will be ſufficient to ſhow, how much the preſervation of health depends upon a proper regimen of the diet.

Nor is an attention to diet neceſſary for the preſervation of health only: it is likewiſe of importance in the cure of diſeaſes. Every intention in the cure of many diſeaſes, may be anſwered by diet alone. Its effects, indeed, are not always ſo quick as thoſe of medicine, but they are generally more laſting: beſides, it is neither ſo diſagreeable to the patient, nor ſo dangerous as medicine, and is always more eaſily obtained.

Our intention is not to inquire minutely into the nature and properties of the various kinds of aliment in uſe among mankind; nor to ſhow their effects upon the different conſtitutions of the human body; but to mark ſome of the moſt pernicious errors which people are apt to fall into, with reſpect both to the quantity and qualities of their food, and to point out their influence upon health.

It is not eaſy to aſcertain the exact quantity of food proper for every age, ſex, and conſtitution: but a ſcrupulous nicety here is not neceſſary. The beſt rule is to avoid all extremes. Mankind were never intended to weigh and meaſure their food. Nature teaches every creature when it has enough; and the calls of thirſt and hunger are ſufficient to inform them when more is neceſſary.

Though moderation is the chief rule with regard to the quantity, yet the quality of food merits a farther conſideration. There are many ways by which proviſions may be rendered unwholeſome. Bad ſeaſons may either prevent the ripening of grain, or damage it afterwards. Theſe, indeed, are acts of Providence, and we muſt ſubmit to them; but no puniſhment can be too ſevere for thoſe

who ſuffer proviſions to ſpoil by hoarding them, on purpoſe to raiſe the price, or who promote their own intereſt by adulterating the neceſſaries of life*.

Animal, as well as vegetable food, may be rendered unwholeſome, by being kept too long. All animal ſubſtances have a conſtant tendency to putrefaction; and, when that has proceeded too far, they not only become offenſive to the ſenſes, but hurtful to health. Diſeaſed animals, and ſuch as die of themſelves, ought never to be eaten. It is a common practice in ſome grazing countries, for ſervants and poor people to eat ſuch animals as die of diſeaſe, or are killed by accident. Poverty may oblige people to do this; but they had better eat a ſmaller quantity of what is found and wholeſome: it would both afford a better nouriſhment, and be attended with leſs danger.

The injunctions given to the Jews, not to eat any creature which died of itſelf, ſeem to have a ſtrict regard to health; and ought to be obſerved by Chriſtians as well as Jews. Animals never die of themſelves without ſome previous diſeaſe; but how a diſeaſed animal ſhould be wholeſome food, is inconceivable: even thoſe which die by accident muſt be hurtful, as their blood is mixed with the fleſh, and ſoon turns putrid.

Animals which feed groſsly, as tame ducks, hogs, &c. are neither ſo eaſily digeſted, nor afford ſuch wholeſome nouriſhment as others. No animal can be wholeſome which does not take ſufficient exerciſe. Moſt of our ſtalled cattle are crammed with groſs food, but not allowed exerciſe nor free air; by which means they indeed grow fat, but their juices, not being properly prepared or aſſimilated, remain crude, and occaſion indigeſtions, groſs humours and oppreſſion of the ſpirits, in thoſe who feed upon them.

Animals are often rendered unwholeſome by being over-heated. Exceſſive heat cauſes a fever. For this reaſon, butchers ſhould be ſeverely reprimanded who over-drive their cattle. No perſon would chooſe to eat the fleſh of an animal which had died in a high fever; yet that is the caſe with all over-drove cattle; and the fever is often raiſed even to the degree of madneſs.

But this is not the only way by which butchers render meat unwholeſome. The abominable cuſtom of filling the cellular membrane of animals with air, in order to make them appear fat, is every day practiſed. This not only ſpoils the meat, and renders it unfit for keeping, but is ſuch a dirty trick, that the very idea of it is ſufficient to diſguſt a perſon of any delicacy at every thing which

* The poor are generally the firſt who ſuffer by unſound proviſions; but the lives of the labouring poor are of great importance to the ſtate; beſides, diſeaſes occaſioned by unwholeſome food often prove infectious, by which means they reach people in every ſtation. It is therefore the intereſt of all to take care that no ſpoilt proviſions of any kind be expoſed to ſale.

comes from the ſhambles. Who can bear the thought of eating meat which has been blown up with air from the lungs of a dirty fellow, perhaps labouring under the very worſt of diſeaſes?

Butchers have likewiſe a method of filling the cellular membranes of animals with blood. This makes the meat ſeem fatter, and likewiſe weigh more, but it is a very pernicious cuſtom, as it both renders the meat unwholeſome and unfit for keeping. I ſeldom ſee a piece of meat from the ſhambles, where the blood is not diffuſed through the cellular texture. I ſhall not ſay that this is always the effect of deſign; but I am certain it is not the caſe with animals that are killed for domeſtic uſe, and properly blooded. Veal ſeems to be moſt frequently ſpoilt in this way. Perhaps that may in ſome meaſure be owing to the practice of carrying calves from a great diſtance to market, by which means their tender fleſh is bruiſed, and many of their veſſels burſt.

No people in the world eat ſuch quantities of animal food as the Engliſh, which is one reaſon why they are ſo generally tainted with the ſcurvy and its numerous train of conſequences, indigeſtion, low ſpirits, hypochondriaciſm, &c. Animal food was ſurely deſigned for man, and with a proper mixture of vegetables, it will be found the moſt wholeſome; but to gorge beef, mutton, pork, fiſh, and fowl, twice or thrice a day, is certainly too much. All who value health ought to be contented with making one meal of fleſh in twenty-four hours, and this ought to conſiſt of one kind only.

The moſt obſtinate ſcurvy has often been cured by a vegetable diet; nay, milk alone will frequently do more in that diſeaſe than any medicine. If vegetables and milk were more uſed in diet, we ſhould have leſs ſcurvy, and likewiſe fewer putrid and inflammatory fevers. Freſh vegetables, indeed, come to be daily more uſed in diet: This laudable practice we hope will continue to gain ground.

Our aliment ought neither to be too moiſt nor too dry. Moiſt aliment relaxes the ſolids, and renders the body feeble. Thus, females, who live much on tea, and other watery diet, generally become weak, and unable to digeſt ſolid food: Hence proceed hyſterics, and all their conſequences. On the other hand, food that is too dry, renders the ſolids in a manner rigid, and the humours viſcid, which diſpoſes the body to inflammatory fevers, ſcurvies, and the like.

Much has been ſaid on the ill effects of tea in diet. They are, no doubt, numerous; but they proceed rather from the imprudent uſe of it, than from any bad qualities in the tea itſelf. Moſt delicate perſons, who are the greateſt tea-drinkers, cannot eat any thing in the morning. If ſuch perſons, after faſting ten or twelve hours, drink four or five cups of tea, without eating almoſt any bread, it muſt hurt them. Good tea, taken in moderate quantity, not too ſtrong, nor too hot, nor drank upon an empty ſtomach, will ſeldom do harm; but if it be bad, or ſubſtituted in the room of ſolid food, it muſt have many ill effects.

The arts of cookery render many things unwholeſome, which are not ſo in their own nature. By jumbling together a number of different ingredients, in order to make a poignant ſauce or rich ſoup, the compoſition proves almoſt a poiſon. All high ſeaſoning, pickles, &c. are only incentives to luxury, and hurt the ſtomach. It were well, if cookery as an art were prohibited. Plain roaſting or boiling is all that the ſtomach requires. Theſe alone are ſufficient for people in health, and the ſick have ſtill leſs need of a cook.

The liquid part of our aliment likewiſe claims our attention. Water is not only the baſis of moſt liquors, but alſo compoſes a great part of our ſolid food. Good water muſt therefore be of the greateſt importance in diet. The beſt water is that which is moſt pure, and free from any mixture of foreign bodies. Water takes up parts of moſt bodies with which it comes into contact; by this means, it is often impregnated with metals or minerals of a hurtful or poiſonous nature. Hence the inhabitants of ſome hilly countries have peculiar diſeaſes, which in all probability proceed from the water. Thus the people who live near the Alps in Switzerland, and the inhabitants of the Peak of Derby, in England, have large tumours or wens in their necks. This diſeaſe is generally imputed to the ſnow-water; but it is rather owing to the minerals in the mountains through which the waters paſs.

When water is impregnated with foreign bodies, it generally appears by its weight, colour, taſte, ſmell, heat, or ſome other ſenſible quality. Our buſineſs is to chooſe ſuch water, for common uſe, as is lighteſt, and without any particular colour, taſte, or ſmell. In moſt places of Britain the inhabitants have their choice of water; and few things would contribute more to health than a due attention to this article. Indolence often induces people to make uſe of the water that is neareſt, without conſidering its qualities.

Before water be brought into great towns, the ſtricteſt attention ought to be paid to its qualities, as many diſeaſes may be occaſioned or aggravated by bad water; and when once procured at a great expenſe, people are unwilling to give it up.

The common methods of rendering water clear by filtration, or ſoft, by expoſing it to the ſun and air, &c. are generally known. We ſhall only adviſe all to avoid waters which ſtagnate long in ſmall lakes, ponds, or the like; as ſuch waters often become putrid, by the corruption of animal and vegetable bodies with which they abound. Even cattle frequently ſuffer by drinking, in dry ſeaſons, water which has ſtood long in ſmall reſervoirs, without being ſupplied by ſprings or freſhened with ſhowers. All wells ought to be kept clean, and to have a free communication with the air.

Fermented liquors, though exclaimed againſt by many writers, continue to be the common drink of almoſt every perſon who can afford them: We ſhall rather endeavour to aſſiſt people in the choice of thoſe liquors, than pretend to condemn what cuſtom has ſo firmly eſtabliſhed. It is not the moderate uſe of ſound fermented

liquors which hurts mankind: It is excefs, and uſing ſuch as are ill prepared or vitiated.

Fermented liquors, which are too ſtrong, hurt digeſtion; and the body is ſo far from being ſtrengthened by them, that it is weakened and relaxed. Many imagine that hard labour could not be ſupported without drinking ſtrong liquors: This is a very erroneous notion. Men who never taſte ſtrong liquors are not only able to endure more fatigue, but alſo live much longer, than thoſe who uſe them daily. But, ſuppoſe ſtrong liquors did enable a man to do more work, they muſt nevertheleſs waſte the powers of life, and occaſion premature old age. They keep up a conſtant fever, which exhauſts the ſyſtem, and diſpoſes the body to numberleſs diſeaſes.

But fermented liquors may be too weak as well as too ſtrong: when that is the caſe, they muſt be either drank new, or they become ſour and dead; when ſuch liquors are drank new, the fermentation not being over, they generate air in the bowels, and occaſion flatulencies; and, when kept till ſtale, they ſour on the ſtomach, and hurt digeſtion. For this reaſon, all malt-liquors, cider, &c. ought to be of ſuch ſtrength, as to keep till they are ripe, and then they ſhould be uſed. When ſuch liquors are kept too long, though they ſhould not become ſour, yet they generally contract a hardneſs, which renders them unwholeſome.

All families, who can, ought to prepare their own liquors. Since preparing and vending of liquors became one of the moſt general branches of buſineſs, every method has been tried to adulterate them. The great object both to the makers and venders of liquor is, to render it intoxicating. But it is well known that this may be done by other ingredients than thoſe which ought to be uſed for making it ſtrong. It would be imprudent even to name thoſe things which are daily made uſe of to render liquors heady. Suffice it to ſay, that the practice is very common, and that all the ingredients uſed for this purpoſe are of a narcotic or ſtupefactive quality. But as all opiates are poiſonous, it is eaſy to ſee what muſt be the conſequence of their general uſe. Though they do not kill ſuddenly, yet they hurt the nerves, relax and weaken the ſtomach, and ſpoil the digeſtion.

Were fermented liquors faithfully prepared, kept to a proper age, and uſed in moderation, they would prove real bleſſings to mankind. But, while they are ill prepared, various ways adulterated, and taken to exceſs, they muſt have many pernicious effects.

We recommend it to families, not only to prepare their own liquors, but their bread. Bread is ſo neceſſary a part of diet, that too much care cannot be beſtowed in order to have it ſound and wholeſome. For this purpoſe, it is not only neceſſary that it be made of good grain, but likewiſe properly prepared, and kept free from all unwholeſome ingredients. This is not always the caſe with bread prepared by thoſe who make a trade of vending it. Their object is rather to pleaſe the eye, than to conſult the health.

The beſt bread is that which is neither too coarſe nor too fine, well fermented, and made of wheat flour, or rather of wheat and rye mixed together.

To ſpecify the different kinds of aliment, to explain their nature and properties, and to point out their effects in different conſtitutions would far exceed our deſign. We ſhall only mention the following eaſy rules with reſpect to the choice of aliment.

Perſons, whoſe ſolids are weak and relaxed, ought to avoid all viſcid food, or ſuch things as are hard of digeſtion. Their diet ought to be nouriſhing, and they ſhould take ſufficient exerciſe in the open air.

Such as abound with blood ſhould be ſparing in every thing that is highly nouriſhing, as fat meat, rich wines, ſtrong ale, and ſuch like. Their food ſhould conſiſt moſtly of bread and other vegetable ſubſtances; and their drink ought to be water, whey, or ſmall-beer.

Fat people ſhould not eat freely of oily nouriſhing diet. They ought frequently to uſe radiſh, garlic, ſpices, or ſuch things as are heating and promote perſpiration and urine. Their drink ſhould be water, coffee, tea, or the like; they ought to take much exerciſe, and little ſleep. Thoſe who are too lean muſt follow an oppoſite courſe.

Such as are troubled with acidities, or whoſe food is apt to ſour on the ſtomach, ſhould live much on animal food; and thoſe afflicted with hot alkaline eructations, ought to uſe a diet conſiſting chiefly of acid vegetables.

People affected with the gout, low ſpirits, hypochondriac or hyſteric diſorders, ought to avoid all flatulent food, every thing that is viſcid, or hard of digeſtion, all ſalted or ſmoke-dried proviſions, and whatever is auſtere, acid, or apt to ſour on the ſtomach. Their food ſhould be light, ſpare, cool, and of an opening nature.

The diet ought to be ſuited to the age, conſtitution, and manner of life: A ſedentary or ſtudious perſon ſhould live more ſparingly than one who labours hard without doors. Many kinds of food will nouriſh a peaſant very well, which would be almoſt indigeſtible to a citizen; and the latter will live upon a diet on which the former would ſtarve.

Diet ought not to be too uniform. The conſtant uſe of one kind of food might have ſome bad effects. Nature teaches us this, by the great variety of aliment which ſhe has provided for man, and likewiſe by giving him an appetite for different kinds of food.

Thoſe who labour under any particular diſeaſe, ought to avoid ſuch aliments as have a tendency to increaſe it: For example, a gouty perſon ſhould not indulge in rich wines, ſtrong ſoups or gravies, and ſhould avoid all acids. One who is troubled with the gravel ought to ſhun all auſtere and aſtringent aliments; and thoſe who are ſcorbutic ſhould be ſparing in the uſe of ſalted proviſions.

In the firſt period of life, our food ought to be light, nouriſhing, and frequently taken. Food that is ſolid, with a ſufficient degree

of tenacity, is moſt proper for the ſtate of manhood. The diet ſuited to the laſt period of life, when nature is upon the decline, approaches nearly to that of the firſt. It ſhould be lighter and more ſucculent than that of vigorous age, and likewiſe more frequently taken.

It is not only neceſſary for health that our diet be wholeſome, but alſo that it be taken at regular periods. Some imagine long faſting will atone for exceſs; but this, inſtead of mending the matter, generally makes it worſe. When the ſtomach and inteſtines are over-diſtended with food, they loſe their proper tone, and, by long faſting, they become weak, and inflated with wind. Thus, either gluttony or faſting deſtroys the powers of digeſtion.

The frequent repetition of aliment is not only neceſſary for repairing the continual waſte of our bodies, but likewiſe to keep the fluids ſound and ſweet. Our humours, even in the moſt healthy ſtate, have a conſtant tendency to putrefaction, which can only be prevented by frequent ſupplies of freſh nouriſhment: when that is wanting too long, the putrefaction often proceeds ſo far as to occaſion very dangerous fevers. From hence we may learn the neceſſity of regular meals. No perſon can enjoy a good ſtate of health, whoſe veſſels are either frequently overcharged, or the humours long deprived of freſh ſupplies of chyle.

Long faſting is extremely hurtful to young people; it not only vitiates their humours, but prevents their growth. Nor is it leſs injurious to the aged. Moſt perſons, in the decline of life, are afflicted with wind: This complaint is not only increaſed, but rendered dangerous, and often fatal, by long faſting. Old people, when their ſtomachs are empty, are frequently ſeized with giddineſs, headachs, and faintneſs. Theſe complaints may generally be removed by a piece of bread and a glaſs of wine, or taking any other ſolid food; which plainly points out the method of preventing them.

Many of the ſudden deaths, which happen in the advanced periods of life, are occaſioned by faſting too long, as it exhauſts the ſpirits, and fills the bowels with wind; we would therefore adviſe people in the decline of life, never to allow their ſtomachs to be too long empty. Many people take nothing but a few cups of tea and a little bread, from nine o'clock at night till two or three next afternoon. Such may be ſaid to faſt almoſt three-fourths of their time. This can hardly fail to ruin the appetite, and fill the bowels with wind; all which might be prevented by a ſolid breakfaſt.

It is very common to eat a light breakfaſt and a heavy ſupper. This cuſtom ought to be reverſed. When people ſup late, their ſupper ſhould be very light; but the breakfaſt ought always to be ſolid. If any one eats a light ſupper, goes ſoon to bed, and riſes betimes in the morning, he will be ſure to find an appetite for his breakfaſt, and he may freely indulge it.

The ſtrong and healthy do not ſuffer ſo much from faſting as the weak and delicate; but they run great hazard from its oppoſite,

viz. repletion. Many diſeaſes, eſpecially fevers, are the effect of a plethora, or too great fulneſs of the veſſels. Strong people, in high health, have generally a great quantity of blood and other humours. When theſe are ſuddenly increaſed, by an overcharge of rich and nouriſhing diet, the veſſels become too much diſtended, and obſtructions and inflammations enſue. Hence ſo many people are ſeized with inflammatory and eruptive fevers after a feaſt or debauch.

All great and ſudden changes in diet are dangerous. What the ſtomach has been long accuſtomed to digeſt, though leſs wholeſome, will agree better with it than food of a more ſalutary nature which it has not been uſed to. When a change becomes neceſſary, it ought to be made gradually; a ſudden tranſition from a poor and low, to a rich and luxurious diet, or the contrary, might ſo diſturb the functions of the body, as to endanger health, or even to occaſion death itſelf.

When we recommend regularity in diet, we condemn not every ſmall deviation. It is next to impoſſible for people at all times to avoid ſome degree of exceſs, and living too much by rule might make even the ſmalleſt deviation dangerous. It may be prudent to vary a little, ſometimes taking more, ſometimes leſs, than the uſual quantity of meat and drink, if due regard be had to moderation.

## CHAPTER IV.

### *Of Air.*

UNWHOLESOME air is a very common cauſe of diſeaſes. Few are aware of the danger ariſing from it. People generally pay ſome attention to what they eat and drink, but ſeldom regard what goes into the lungs, though the latter often proves more ſuddenly fatal than the former.

Air, as well as water, takes up parts of moſt bodies with which it comes into contact, and is often ſo repleniſhed with thoſe of a noxious quality, as to occaſion immediate death. But ſuch violent effects ſeldom happen, as people are generally on their guard againſt them. The leſs perceptible influences of bad air, prove more generally hurtful to mankind; we ſhall point out ſome of theſe, and ſhow from whence the danger chiefly ariſes.

Air may become noxious many ways. Whatever greatly alters its degree of heat, cold, moiſture, &c. renders it unwholeſome. Very cold air obſtructs the perſpiration, conſtringes the ſolids, and occaſions rheumatiſms, coughs, and catarrhs, with other diſeaſes of the throat and breaſt. Air that is too moiſt deſtroys the elaſti-

city or ſpring of the ſolids, induces phlegmatic or lax conſtitutions, and diſpoſes the body to agues; or intermitting fevers, dropſies, &c.

Wherever great numbers of people are crowded into one place, if the air has not a free circulation, it ſoon becomes unwholeſome. Hence it is that delicate perſons are ſo apt to turn ſick or faint in crowded churches, aſſemblies, or any place where the air is injured by breathing, fires, candles, or the like.

In great cities, ſo many things tend to contaminate the air, that it is no wonder it proves ſo fatal to the inhabitants. The air in cities is not only breathed repeatedly over, but is likewiſe loaded with ſulphur, ſmoke, and other exhalations, beſides the vapours continually ariſing from innumerable putrid ſubſtances, as dunghills, ſlaughter-houſes, &c. All poſſible care ſhould be taken to keep the ſtreets of large towns open and wide, that the air may have a free current through them. They ought likewiſe to be kept very clean. Nothing tends more to pollute the air of a city than dirty ſtreets.

It is very common in this country to have church-yards in the middle of populous cities. Whether this be the effect of ancient ſuperſtition, or owing to the increaſe of ſuch towns, is a matter of no conſequence. Whatever gave riſe to the cuſtom, it is a bad one. Habit alone reconciles us to theſe things; by means of which the moſt ridiculous, nay, pernicious cuſtoms, often become ſacred. Thouſands of putrid carcaſſes, ſo near the ſurface of the earth, in a place where the air is confined, cannot fail to taint it; and ſuch air, when breathed into the lungs, muſt occaſion diſeaſes*.

Burying within churches is a practice ſtill more deteſtable. The air in churches is ſeldom good, and the effluvia from putrid carcaſſes muſt render it ſtill worſe. Churches are commonly old buildings with arched roofs. They are ſeldom opened above once a week, are never ventilated by fires nor open windows, and rarely kept clean. This occaſions that damp, muſty, unwholeſome ſmell which one feels upon entering a church, and renders it a very unſafe place for the weak and valetudinary. Theſe inconveniences might, in a great meaſure, be obviated, by prohibiting all perſons from burying within churches, by keeping them clean, and permitting a ſtream of freſh air to paſs frequently through them, by opening oppoſite doors and windows.

Wherever air ſtagnates long, it becomes unwholeſome. Hence perſons confined in jails not only contract malignant fevers themſelves, but often communicate them to others. Nor are many of the holes, for we cannot call them houſes, poſſeſſed by the poor in great towns, much better than jails. Theſe low dirty habitations

* In moſt eaſtern countries, it was cuſtomary to bury the dead at ſome diſtance from any town. As this practice obtained among the Jews, the Greeks, and alſo the Romans, it is ſtrange that the weſtern parts of Europe ſhould not have followed their example in a cuſtom ſo truly laudable.

are the very lurking-places of bad air and contagious diſeaſes. Such as live in them ſeldom enjoy good health; and their children commonly die young. In the choice of a houſe, thoſe who have it in their power ought to pay the greateſt attention to open free air.

The various methods which luxury has invented to make houſes cloſe and warm, contribute to render them unwholeſome. No houſe can be wholeſome unleſs the air has a free paſſage through it. For which reaſon, houſes ought daily to be ventilated, by opening oppoſite windows, and admitting a current of freſh air into every room. Beds, inſtead of being made up as ſoon as people riſe out of them, ought to be turned down, and expoſed to the freſh air from the open windows through the day. This would expel any noxious vapour, and promote the health of the inhabitants.

In hoſpitals, jails, ſhips, &c. where that cannot be conveniently done, ventilators ſhould be uſed. The method of expelling foul, and introducing freſh air, by means of ventilators, is a moſt ſalutary invention, and the moſt uſeful of all modern medical improvements. It is capable of univerſal application, and is fraught with numerous advantages, both to thoſe in health and ſickneſs. In all places where numbers of people are crowded together, ventilation becomes abſolutely neceſſary.

Air which ſtagnates in mines, wells, cellars, &c. is extremely noxious, and ought to be avoided as the moſt deadly poiſon. It often kills almoſt as quickly as lightning. For this reaſon, people ſhould be very cautious in opening cellars that have been long ſhut, or going down into deep wells or pits, eſpecially if they have been kept cloſe covered*.

Many people who have ſplendid houſes, chooſe to ſleep in ſmall apartments. This is very imprudent. A bed-chamber ought always to be well aired; as it is generally occupied in the night only, when all doors and windows are ſhut. If a fire be kept in it, the danger from a ſmall room becomes ſtill greater. Numbers have been ſtifled when aſleep by a fire in a ſmall apartment, which is always hurtful.

Thoſe who are obliged, on account of buſineſs, to ſpend the day in cloſe towns, ought, if poſſible, to ſleep in the country. Breathing free air in the night will, in ſome meaſure, make up for the want of it through the day. This practice would have a greater effect in preſerving the health of citizens than is commonly imagined.

Delicate perſons ought, as much as poſſible, to avoid the air of great towns. It is peculiarly hurtful to the aſthmatic and conſumptive. Such perſons ſhould avoid cities as they would the plague.

* We have frequent accounts of perſons who loſe their lives by going down into deep wells and other places where the air ſtagnates; all theſe accidents might be prevented by only letting down a lighted candle before them, and ſtopping when they perceive it go out; yet this ſimple precaution is ſeldom uſed.

The hypochondriac are likewiſe much hurt by it. Perſons, ſo much afflicted with this malady while in town, that it ſeemed impoſſible for them to live, have, upon removing to the country, been immediately relieved. The ſame obſervation holds as to nervous and hyſteric women. Many people have it not in their power to change their ſituation in queſt of better air. All we can ſay to ſuch perſons is, that they ſhould go as often abroad into the open air as they can, that they ſhould admit freſh air frequently into their houſes, and take care to keep them very clean.

It was neceſſary in former times, for ſafety, to ſurround cities, colleges, and even ſingle houſes, with high walls. Theſe, by obſtructing the free current of air, render ſuch places damp and unwholeſome. Proper attention to air and cleanlineſs would tend more to preſerve the health of mankind, than all the endeavours of the faculty.

Surrounding houſes too cloſely with planting, or thick woods, likewiſe tends to render the air unwholeſome. Wood not only obſtructs the free current of air, but ſends forth great quantities of moiſt exhalations, which render it conſtantly damp. Wood is very agreeable at a proper diſtance from a houſe, but ſhould never be planted too near it, eſpecially in a flat country. Many gentlemen's ſeats in England are very unwholeſome from the great quantity of wood which ſurrounds them.

Houſes ſituated in low marſhy countries, or near large lakes of ſtagnating water, are likewiſe unwholeſome. Waters which ſtagnate not only render the air damp, but load it with putrid exhalations, which produce the moſt dangerous and fatal diſeaſes. Thoſe obliged to inhabit marſhy countries, ought to make choice of the drieſt ſituation they can find, to live generouſly, and to pay the ſtricteſt regard to cleanlineſs.

If freſh air be neceſſary for thoſe in health, it is ſtill more ſo for the ſick, who often loſe their lives for want of it. The notion that ſick people muſt be kept very hot, is ſo common, that one can hardly enter the chamber where a patient lies, without being ready to faint, from the hot ſuffocating ſmell. How this muſt affect the ſick any one may judge. No medicine is ſo beneficial to the ſick as freſh air. It is the moſt reviving of all cordials, if adminiſtered with prudence. We are not to throw open doors and windows at random upon the ſick. Freſh air is to be let into the chamber gradually, and, if poſſible, by opening the windows of ſome other apartment.

The air of a ſick perſon's chamber may be greatly freſhened, and the patient much revived, by ſprinkling the floor, bed, &c. frequently with vinegar, juice of lemon, or any other ſtrong vegetable acid.

Where numbers of ſick are crowded into the ſame houſe, or, into the ſame apartment, the frequent admiſſion of freſh air becomes abſolutely neceſſary. Infirmaries, hoſpitals, &c. are often

rendered so obnoxious, for want of proper ventilation, that the sick run more hazard from them than from the disease. This is particularly the case when putrid fevers, dysenteries, and other infectious diseases prevail.

Physicians, surgeons, and others who attend hospitals, ought, for their own safety, to take care that they be properly ventilated. Such persons as are obliged to spend most of their time amongst the sick, run great hazard of being themselves infected when the air is bad. All hospitals, and places of reception for the sick, ought to have an open situation, at some distance from any great town, and patients under an infectious disease ought never to come near the rest.

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## CHAPTER V.

### *Of Exercise.*

MANY people look upon the necessity man is under of earning his bread by labour, as a curse. But it is evident from the structure of the body, that exercise is not less necessary than food for the preservation of health: those whom poverty obliges to labour for daily bread, are not only the most healthy, but generally the most happy part of mankind. Industry seldom fails to place such above want, and activity serves them instead of physic. This is peculiarly the case with those who live by the culture of the ground. The great increase of inhabitants in infant colonies, and the longevity of such as follow agriculture every where, prove it to be the most healthful as well as the most useful employment.

The love of activity shows itself very early in man. So strong is this principle, that a healthy youth cannot be restrained from exercise, even by the fear of punishment. Our love of motion is a strong proof of its utility. Nature implants no disposition in vain. It seems to be a law throughout the animal creation, that no creature, without exercise, should enjoy health, or be able to find subsistence. Every creature, except man, takes what is necessary. He alone, and such animals as are under his direction, deviate from this original law, and they suffer accordingly.

Inactivity never fails to induce an universal relaxation of the solids, which dispose the body to innumerable diseases. When the solids are relaxed, neither the digestion, nor any of the secretions, can be duly performed. In this case, the worst consequences must ensue. How can persons who loll all the day in easy chairs, and sleep all night on beds of down, fail to be relaxed?

Nor do such greatly mend the matter, who never stir abroad but in a coach, sedan, or such like. These elegant pieces of luxury are become so common, that the inhabitants of great towns seem to be in some danger of losing the use of their limbs altogether. It is now below any one to walk, who can afford to be carried. How ridiculous would it seem, to a person unacquainted with modern luxury, to behold the young and healthy swinging along on the shoulders of their fellow-creatures! or to see a fat carcase, overrun with diseases occasioned by inactivity, dragged through the streets by half a dozen horses*!

Glandular obstructions, now so common, generally proceed from inactivity. These are the most obstinate of maladies. So long as the liver, kidnies, and other glands, duly perform their functions, health is seldom impaired; but when they fail, nothing can restore it. Exercise is almost the only cure we know for glandular obstructions; indeed, it does not always succeed as a remedy; but there is reason to believe that it would seldom fail to prevent these complaints, were it used in due time. One thing is certain, that, amongst those who take sufficient exercise, glandular diseases are very little known; whereas the indolent and inactive are seldom free from them.

Weak nerves are the constant companions of inactivity. Nothing but exercise and open air can brace and strengthen the nerves, or prevent the endless train of diseases which proceed from a relaxed state of these organs. We seldom hear the active or laborious complain of nervous diseases; these are reserved for the sons of ease and affluence. Many have been completely cured of these disorders by being reduced from a state of opulence, to labour for their daily bread. This plainly points out the sources from whence nervous diseases flow, and the means by which they may be prevented.

It is absolutely impossible to enjoy health, where the perspiration is not duly carried on; but that can never be the case where exercise is neglected. When the matter which ought to be thrown off by perspiration is retained in the body, it occasions fevers, rheumatism, &c. Exercise alone would prevent many of those diseases which cannot be cured, and would remove others where medicine proves ineffectual.

Doctor Cheyne says, that the weak and valetudinary ought to make exercise a part of their religion. We recommend this not only to the weak and valetudinary, but to all those whose business does not oblige them to take sufficient exercise, as sedentary artifi-

* It is not necessity, but fashion, which makes the use of carriages so common. Many people have not exercise enough to keep their humours from stagnation, who yet dare not venture to make a visit to their next neighbours, but in a coach or sedan, lest they should be looked down upon. Strange, that men should be such fools as to be laughed out of the use of their limbs, or to throw away their health, in order to gratify a piece of vanity, or to comply with a ridiculous fashion!

cers*, ſhop-keepers, ſtudious perſons, &c. Such ought to uſe exerciſe as regularly as they take food. This might generally be done without any interruption to buſineſs or real loſs of time.

No piece of indolence hurts the health more than the modern cuſtom of lying a-bed too long in the morning. This is the general practice in great towns. The inhabitants of cities ſeldom riſe before eight or nine o'clock; but the morning is undoubtedly the beſt time for exerciſe, while the ſtomach is empty, and the body refreſhed with ſleep. Beſides, the morning-air braces and ſtrengthens the nerves, and, in ſome meaſure, anſwers the purpoſe of a cold-bath. Let any one who has been accuſtomed to lie a-bed till eight or nine o'clock, riſe by ſix or ſeven, ſpend a couple of hours in walking, riding, or any active diverſion without doors, and he will find his ſpirits cheerful and ſerene through the day, his appetite keen, and his body braced and ſtrengthened. Cuſtom ſoon renders early-riſing agreeable, and nothing contributes more to the preſervation of health.

The inactive are continually complaining of pains of the ſtomach, flatulencies, indigeſtions, &c. Theſe complaints, which pave the way to many others, are not to be removed by medicines. They can only be cured by a vigorous courſe of exerciſe, to which indeed they ſeldom fail to yield.

Exerciſe, if poſſible, ought always to be taken in the open air. When that cannot be done, various methods may be contrived for exerciſing the body within doors, as the dumb-bell, dancing, ſwinging, &c. It is not neceſſary to adhere ſtrictly to any particular kind of exerciſe. The beſt way is to take them by turns, and to uſe that longeſt which is moſt ſuitable to the ſtrength and conſtitution. Thoſe kinds of exerciſe which give action to moſt of the bodily organs, are always to be preferred, as walking, running, riding, fencing, digging, ſwimming, and ſuch like.

It is much to be regretted, that active and manly diverſions are now ſo little practiſed. Diverſions make people take more exerciſe than they otherwiſe would do, and are of the greateſt ſervice to ſuch as are not under the neceſſity of labouring for their

* Sedentary occupations ought chiefly to be followed by women. They bear confinement much better than men, and are fitter for every kind of buſineſs which does not require much ſtrength. It is ridiculous enough to ſee a luſty fellow making pins, needles, or watch-wheels, while many of the laborious parts of husbandry are carried on by the other ſex. We want men for laborious employments, while one half of the other ſex are rendered uſeleſs for want of occupations ſuited to their ſtrength, &c. Were girls bred to mechanical employments, we would not ſee ſuch numbers proſtitute themſelves for bread, nor find ſuch a want of men for the important purpoſes of navigation, agriculture, &c. An eminent ſilk manufacturer told me, that he found women anſwer better for that buſineſs than men; and that he had lately taken a great many girls apprentices as ſilk-weavers. I hope this example will be followed by many others.

bread. As active diverſions loſe ground, thoſe of a ſedentary kind ſeem to prevail. Sedentary diverſions are of no other uſe but to conſume time. Inſtead of relieving the mind, they often require more thought than either ſtudy or buſineſs. Every thing that induces people to ſit ſtill, unleſs it be ſome neceſſary employment, ought to be avoided.

The diverſions which afford the beſt exerciſe are, hunting, ſhooting, playing at cricket, hand-ball, &c. Theſe exerciſe the limbs, promote perſpiration, and the other ſecretions. They likewiſe ſtrengthen the lungs, and give firmneſs and agility to the whole body.

Such as can, ought to ſpend two or three hours a-day on horſeback; thoſe who cannot ride, ſhould employ the ſame time in walking. Exerciſe ſhould never be continued too long. Overfatigue prevents the benefit of exerciſe, and inſtead of ſtrengthening the body, tends to weaken it.

Every man ſhould lay himſelf under ſome ſort of neceſſity to take exerciſe. Indolence, like other vices when indulged, gains ground, and at length becomes agreeable. Hence, many who were fond of exerciſe in the early part of life, become quite averſe from it afterwards. This is the caſe of moſt hypochondriac and gouty people, which renders their diſeaſes in a great meaſure incurable.

In ſome countries, laws have been made, obliging every man, of whatever rank, to learn ſome mechanical employment. Whether ſuch laws were deſigned for the preſervation of health, or the encouragement of manufactures, is of no importance. If gentlemen were frequently to amuſe and exerciſe themſelves in this way, it might have many good effects. They would at leaſt derive as much honour from a few maſterly ſpecimens of their own workmanſhip, as from the character of having ruined moſt of their companions by gaming or drinking. Beſides, men of leiſure, by applying themſelves to the mechanical arts, might improve them, to the great benefit of ſociety.

Indolence not only occaſions diſeaſes, and renders men uſeleſs to ſociety, but promotes all manner of vice. To ſay a man is idle, is little better than calling him vicious. The mind, if not engaged in ſome uſeful purſuit, is conſtantly in queſt of idle pleaſures, or impreſſed with the apprehenſion of ſome imaginary evil. From theſe ſources proceed moſt of the miſeries of mankind. Certainly man was never intended to be idle. Inactivity fruſtrates the very deſign of his creation; whereas an active life is the beſt guardian of virtue, and the greateſt preſervative of health.

## CHAPTER VI.

### *Of Sleep and Clothing.*

SLEEP, as well as diet, ought to be duly regulated. Too little sleep weakens the nerves, exhausts the spirits, and occasions diseases; and too much renders the mind dull, the body gross, and disposes to apoplexies, lethargies, and other complaints of a similar nature. A medium ought to be observed; but this is not easy to fix. Children require more sleep than grown persons, the laborious than the idle, and such as eat and drink freely, than those who live abstemiously. Besides, the real quantity of sleep cannot be measured by time; as one person will be more refreshed by five or six hours of sleep, than another by eight or ten.

Children may always be allowed to take as much sleep as they please; but, for adults, six or seven hours is certainly sufficient, and no one ought to exceed eight. Those who lie a-bed more than eight hours may slumber, but they can hardly be said to sleep; such generally toss and dream away the fore-part of the night, sink to rest towards morning, and doze till noon. The best way to make sleep sound and refreshing is to rise betimes. The custom of lying a-bed for nine or ten hours, not only makes the sleep less refreshing, but relaxes the solids, and greatly weakens the constitution.

Nature points out night as the proper season for sleep. Nothing more certainly destroys the constitution than night-watching. It is great pity that a practice so destructive to health should be so much in fashion. How quickly the want of rest in due season will blast the most blooming complexion, or ruin the best constitution, is evident from the ghastly countenances of those, who, as the phrase is, turn day into night, and night into day.

To make sleep refreshing, the following things are requisite: First, to take sufficient exercise in the open air; to avoid strong tea or coffee; next, to eat a light supper; and lastly, to lie down with a mind as cheerful and serene as possible.

It is certain that too much exercise will prevent sleep, as well as too little. We seldom however hear the active and laborious complain of restless nights. It is the indolent and slothful who generally have these complaints. Is it any wonder that a bed of down should not be refreshing to a person who sits all day in an easy chair? A great part of the pleasure of life consists in alternate rest and motion; but they who neglect the latter can never relish the former. The labourer enjoys more true luxury in plain food and sound sleep, than is to be found in sumptuous tables and downy pillows, where exercise is wanting.

That light suppers cause sound sleep, is true even to a proverb. Many persons, if they exceed the least at that meal, are sure to have uneasy nights; and, if they fall asleep, the load and oppression

on their ſtomach and ſpirits occaſion frightful dreams, broken and diſturbed repoſe, the night-mare, &c. Were the ſame perſons to go to bed with a light ſupper, or ſit up till that meal was pretty well digeſted, they would enjoy ſound ſleep, and riſe refreſhed and cheerful. There are indeed ſome people who cannot ſleep unleſs they have ate ſome ſolid food at night, but this does not imply the neceſſity of a heavy ſupper; beſides, theſe are generally perſons who have accuſtomed themſelves to this method, and who do not take a ſufficient quantity of ſolid food and exerciſe.

Nothing more certainly diſturbs our repoſe than anxiety. When the mind is not at eaſe, one ſeldom enjoys ſound ſleep. That greateſt of human bleſſings flies the wretched, and viſits the happy, the cheerful, and the gay. This is a ſufficient reaſon why every man ſhould endeavour to be as eaſy in his mind as poſſible when he goes to reſt. Many, by indulging grief and anxious thought, have baniſhed ſound ſleep ſo long, that they could never afterwards enjoy it.

Sleep, when taken in the fore-part of the night, is generally reckoned moſt refreſhing. Whether this be the effect of habit or not, is hard to ſay; but as moſt people are accuſtomed to go early to bed when young, it may be preſumed that ſleep, at this ſeaſon, will prove moſt refreſhing to them ever after. Whether the fore-part of the night be beſt for ſleep or not, ſurely the fore-part of the day is fitteſt both for buſineſs and amuſement. I hardly ever knew an early riſer who did not enjoy a good ſtate of health*.

## *Of Clothing.*

THE clothing ought to be ſuited to the climate. Cuſtom has a very great influence in this article; but no cuſtom can ever change the nature of things ſo far, as to render the ſame clothing fit for an inhabitant of Nova Zembla and Jamaica. It is not neceſſary to obſerve an exact proportion betwixt the quantity of clothes we wear, and the degree of latitude which we inhabit; but, at the ſame time, proper attention ought to be paid it, as well as to the openneſs of the country, the frequency and violence of ſtorms, &c.

In youth, while the perſpiration is free, it is leſs neceſſary to cover the body with a great quantity of clothes; but, in the decline of life, when the ſkin becomes rigid, the clothing ſhould be increaſed. Many diſeaſes in the latter period of life proceed from a defect of perſpiration: theſe may, in ſome meaſure, be prevent-

* Men of every occupation, and in every ſituation of life, have lived to a good old age; nay, ſome have enjoyed this bleſſing whoſe plan of living was by no means regular: but it conſiſts with obſervation, that all very old men have been early riſers. This is the only circumſtance attending longevity, to which I never knew an exception.

ed by a ſuitable addition to the clothing, or by wearing ſuch as are better calculated for promoting the diſcharge from the ſkin, as clothes made of cotton, flannel, &c.

The clothing ought to be ſuited to the ſeaſon of the year. Clothing may be warm enough for ſummer, which is not ſufficient for winter. The greateſt caution is neceſſary in making theſe changes. We ought neither to put off our winter clothes too ſoon, nor to wear our ſummer ones too long. In this country, the winter often ſets in very early with great rigour, and we have frequently cool weather even after the commencement of the ſummer months. It would likewiſe be prudent not to make the change all at once, but to do it gradually; and indeed the changes of apparel in this climate ought to be very inconſiderable, eſpecially among thoſe who have paſſed the meridian of life*.

Clothes often become hurtful by their being made ſubſervient to the purpoſes of pride or vanity. Mankind in all ages have conſidered clothes in this view; their faſhion and figure have been continually varying, with very little regard either to health, climate, or conveniency.

Even the human ſhape is often attempted to be mended by dreſs, and thoſe who know no better believe that mankind would be monſters without its aſſiſtance. All attempts of this nature are highly pernicious. The moſt deſtructive of them in this country is that of ſqueezing the ſtomach and bowels into as narrow a compaſs as poſſible, to procure, what is falſely called a fine ſhape. By this practice the action of the ſtomach and bowels, the motion of the heart and lungs, and almoſt all the vital functions, are obſtructed. Hence proceed indigeſtions, ſyncopes, or fainting fits, coughs, conſumptions of the lungs, and other complaints ſo common among females.

The feet likewiſe often ſuffer by preſſure. How a ſmall foot came to be reckoned genteel, I will not pretend to ſay; but this notion has made many perſons lame. Almoſt nine-tenths of mankind are troubled with corns: a diſeaſe that is ſeldom or never occaſioned but by ſtrait ſhoes. Corns are not only very troubleſome, but, by rendering people unable to walk, they may likewiſe be conſidered as the remote cauſe of other diſeaſes†.

* That colds kill more than plagues, is an old obſervation; and, with regard to this country, it holds ſtrictly true. Every perſon of diſcernment, will perceive, that moſt of the colds which prove ſo deſtructive to the inhabitants, are owing to their imprudence in changing clothes. A few warm days in March or April induce them to throw off their winter garments, without conſidering that our moſt penetrating colds generally happen in May.

† We often ſee perſons quite lame by the nails of their toes having grown into the fleſh, and frequently hear of mortifications proceeding from this cauſe. All theſe, and many other inconveniencies attending the feet, muſt be imputed ſolely to the uſe of ſhort and ſtrait ſhoes.

The ſize and figure of the ſhoe ought certainly to be adapted to the foot. In children the feet are as well ſhaped as the hands, and the motion of the toes as free and eaſy as that of the fingers; yet few perſons in the advanced periods of life are able to make any uſe of their toes. They are generally, by narrow ſhoes, ſqueezed all-of-a-heap, and often laid over one-another in ſuch a manner as to be rendered altogether incapable of motion. Nor is the high heel leſs hurtful than the narrow toe. A lady may ſeem taller for walking on her tiptoes, but ſhe will never walk well in this manner. It ſtrains her joints, diſtorts her limbs, makes her ſtoop, and utterly deſtroys all her eaſe and gracefulneſs of motion: It is entirely owing to ſhoes with high heels and narrow toes, that not one female in ten can be ſaid to walk well.

In fixing on the clothes, due care ſhould be taken to avoid all tight bandages. Garters, buckles, &c. when drawn too tight, not only prevent the free motion and uſe of the parts about which they are bound, but likewiſe obſtruct the circulation of the blood, which prevents the equal nouriſhment and growth of theſe parts, and occaſions various diſeaſes. Tight bandages about the neck, as ſtocks, cravats, necklaces, &c. are extremely dangerous. They obſtruct the blood in its courſe from the brain, by which means head-achs, vertigos, apoplexies, and other fatal diſeaſes are often occaſioned.

The perfection of dreſs is to be eaſy and clean. Nothing can be more ridiculous, than for any one to make himſelf a ſlave to fine clothes. Such an one, and many ſuch there are, would rather remain as fixt as a ſtatue from morning till night, than diſcompoſe a ſingle hair or alter the poſition of a pin. Were we to recommend any particular pattern for dreſs, it would be that which is worn by the ſociety of Friends, commonly called Quakers. They are always neat, clean, and often elegant, without any thing ſuperfluous. What others lay out upon tawdry laces, ruffles and ribbands, they beſtow upon ſuperior cleanlineſs. Finery is only the affectation of dreſs, and very often covers a great deal of dirt.

Clothing ought not only to be ſuited to the climate, the ſeaſon of the year, and the period of life; but likewiſe to the temperature and conſtitution. Robuſt perſons are able to endure either cold or heat better than the delicate; conſequently, may be leſs attentive to their clothing. But the preciſe quantity of clothes neceſſary for any perſon cannot be determined by reaſoning. It is entirely a matter of experience, and every man is the beſt judge for himſelf, what quantity of clothes is neceſſary to keep him warm*.

* Boerhaave uſed to ſay, that no-body ſuffered by cold, ſave fools and beggars; the latter not being able to procure clothes, and the former not having ſenſe to wear them. In many caſes where the powers of medicine had been tried in vain, I have cured the patient by recommending thick ſhoes, a flannel waiſtcoat and drawers, a pair of under ſtockings, or a flannel petticoat, to be worn during the cold ſeaſon at leaſt.

## CHAPTER VII.

### *Of Intemperance.*

ROUSSEAU obſerves, that temperance and exerciſe are the two beſt phyſicians. He might have added, that if theſe were duly regarded, there would be little occaſion for any other. Temperance may juſtly be called the parent of health; yet numbers of mankind act as if they thought diſeaſes and death too ſlow in their progreſs, and by intemperance and debauch ſeem to ſolicit their approach.

The danger of intemperance appears from the very conſtruction of the human body. Health depends on that ſtate of the ſolids and fluids which fits them for the due performance of the vital functions; and while theſe go regularly on, we are ſound and well; but whatever diſturbs them, neceſſarily impairs health. Intemperance never fails to diſorder the whole animal economy: It hurts the digeſtion, relaxes the nerves, renders the different ſecretions irregular, and occaſions numberleſs diſeaſes.

The analogy between the nouriſhment of plants and animals affords a ſtriking proof of the danger of intemperance. Moiſture and manure greatly promote vegetation; yet an over-quantity of either will entirely deſtroy it. The beſt things become hurtful, nay, deſtructive, when carried to exceſs. Hence we learn that the higheſt degree of human wiſdom conſiſts in regulating our appetites and paſſions ſo as to avoid all extremes. It is that chiefly which entitles us to the character of rational beings. The ſlave of appetite is the diſgrace of human nature.

The Author of Nature hath endued us with various paſſions, for the propagation of the ſpecies, the preſervation of the individual, &c. Intemperance is the abuſe of theſe paſſions; and moderation conſiſts in the proper regulation of them. Men, not contented with ſatisfying the ſimple calls of Nature, create artificial wants, and are perpetually in ſearch of ſomething that may gratify them; but imaginary wants never can be gratified. Nature is content with little; but luxury knows no bounds. Hence the epicure, the drunkard, and the debauchee, ſeldom ſtop in their career, till their money or their conſtitution fails: Then indeed they ſee their error when too late.

It is impoſſible to lay down fixt rules with regard to diet, on account of the different conſtitutions of mankind. The moſt ignorant perſon, however, certainly knows what is meant by exceſs; and every man, if he chooſes, can avoid it.

The great rule of diet is to ſtudy ſimplicity. Nature delights in the moſt ſimple food, and every animal, except man, follows her dictates. Man alone riots at large, and ranſacks the whole creation in queſt of luxuries, to his own deſtruction. "For my part," ſays Ad-

diſon, "when I behold a faſhionable table ſet out in all its magnificence, I fancy that I ſee gouts and dropſies, fevers and lethargies, with other innumerable diſtempers, lying in ambuſcade among the diſhes."

Nor is intemperance in other things leſs deſtructive than in diet. How quickly does the immoderate purſuit of carnal pleaſures, or the abuſe of intoxicating liquors, ruin the beſt conſtitution! Theſe vices generally go hand in hand. Hence we ſo often behold the votaries of Bacchus and Venus, even before they have arrived at the prime of life, worn out with diſeaſes, and haſting with ſwift pace to an untimely grave. Did men reflect on the painful diſeaſes, and premature deaths, which are daily occaſioned by intemperance, they would ſhrink back with horror from the indulgence of their darling pleaſures.

Intemperance does not hurt its votaries alone: The innocent too often feel the effects of it. How many wretched orphans are to be ſeen embracing dunghills, whoſe parents, regardleſs of the future, ſpent in riot and debauch what might have ſerved to bring up their offspring in a decent manner? How often do we behold the mother, with her infants, pining in want, while the cruel father is indulging his inſatiate appetites?

Families are not only reduced to miſery, but even extirpated by intemperance. Nothing tends ſo much to prevent propagation, and to ſhorten the lives of children, as the intemperance of parents. The poor man who labours all day, and at night lies down contented with his humble fare, can boaſt a numerous offspring, while his pampered lord, ſunk in eaſe and luxury, often languiſhes without an heir to his ample fortunes. Even ſtates and empires feel the influence of intemperance, and riſe or fall as it prevails.

Inſtead of mentioning the different kinds of intemperance, and pointing out their influence upon health, we ſhall only, by way of example, make a few obſervations on one particular ſpecies of that vice, viz. the abuſe of intoxicating liquors.

Every act of intoxication puts Nature to the expenſe of a fever, in order to diſcharge the poiſonous draught. When this is repeated almoſt every day, it is eaſy to foreſee the conſequences. That conſtitution muſt be ſtrong indeed, which is able long to hold out under a daily fever! but fevers occaſioned by drinking do not always go off in a day: They frequently end in an inflammation of the breaſt, liver, or brain, and produce fatal effects.

Though the drunkard ſhould not fall by an acute diſeaſe, he ſeldom eſcapes thoſe of a chronic kind. Intoxicating liquors, when uſed to exceſs, weaken the bowels and ſpoil the digeſtion; they deſtroy the power of the nerves, and occaſion paralytic and convulſive diſorders. Hence obſtructions, atrophies, dropſies, and conſumptions of the lungs. Theſe are the common ways in which drunkards make their exit. Diſeaſes of this kind, when brought on by hard drinking, ſeldom admit of a cure.

Many people injure their health by drinking, who ſeldom get drunk. The habit of ſoaking, though its effects be not ſo violent, is not leſs pernicious. When the veſſels are kept conſtantly full and upon the ſtretch, the different digeſtions can neither be duly performed, nor the humours properly prepared. Hence, moſt people of this character are afflicted with the gout, the gravel, ulcerous ſores in the legs, &c. If theſe diſorders do not appear, they are ſeized with low ſpirits, hypochondriacal affections, and other ſymptoms of indigeſtion.

Conſumptions are now ſo common, that it is thought one-tenth of the inhabitants of great towns die of that diſeaſe. Hard drinking is no doubt one of the cauſes to which we muſt impute the increaſe of conſumptions. The great quantities of viſcid malt liquor drank by the common people of England, cannot fail to render the blood ſizy and unfit for circulation; from whence proceed obſtructions, and inflammations of the lungs. There are few great ale-drinkers who are not phthiſical: nor is that to be wondered at, conſidering the glutinous and almoſt indigeſtible nature of ſtrong ale.

Thoſe who drink ardent ſpirits or ſtrong wines run ſtill greater hazard; theſe liquors heat and inflame the blood, and tear the tender veſſels of the lungs to pieces; yet ſo great is the conſumption of them in this country, that one would almoſt be induced to think the inhabitants lived upon them*.

The habit of drinking proceeds frequently from misfortunes in life. The miſerable fly to it for relief. It affords them indeed a temporary eaſe. But, this ſolace is ſhort-lived; and when it is over, the ſpirits ſink as much below their uſual tone as they had before been raiſed above it. Hence, a repetition of the doſe becomes neceſſary, and every freſh doſe makes way for another, till the unhappy wretch becomes a ſlave to the bottle, and at length falls a ſacrifice to what at firſt perhaps was taken only as a medicine. No man is ſo dejected as the drunkard when his debauch is gone off. Thoſe who have the greateſt flow of ſpirits while the glaſs circulates freely, are of all others the moſt melancholy when ſober, and often put an end to their exiſtence in a fit of ſpleen or ill humour.

Drunkenneſs not only proves deſtructive to health, but likewiſe to the faculties of the mind. It is ſtrange that creatures who value themſelves on a ſuperior degree of reaſon to that of brutes, ſhould take pleaſure in ſinking ſo far below them. Were ſuch as voluntarily deprive themſelves of the uſe of reaſon, to continue ever

* We may form ſome notion of the immenſe quantity of ardent ſpirits conſumed in Britain from this circumſtance, that in the city of Edinburgh and its environs, beſides the great quantity of foreign ſpirits duly entered, and the ſtill greater quantity which is ſuppoſed to be ſmuggled, it is computed that above two thouſand private ſtills are conſtantly employed in preparing a poiſonous liquor called molaſſes. The common people have got ſo univerſally into the habit of drinking this baſe ſpirit, that when a porter or labourer is ſeen reeling along the ſtreets, they ſay, he has got molaſſed.

after in that condition, it would ſeem but a juſt puniſhment. Though this be not the conſequence of one act of intoxication, it ſeldom fails to ſucceed a courſe of it. By a habit of drinking, the greateſt genius is often reduced to a mere idiot*.

Intoxication is peculiarly hurtful to young perſons. It heats their blood, impairs their ſtrength, and obſtructs their growth; beſides, the frequent uſe of ſtrong liquors in the early part of life deſtroys any benefit that might ariſe from them afterwards. Thoſe who make a practice of drinking generous liquors when young, cannot expect to reap any benefit from them as a cordial in the decline of life.

Drunkenneſs is not only in itſelf a moſt abominable vice, but is an inducement to many others. There is hardly any crime ſo horrid that the drunkard will not perpetrate for the love of liquor. We have known mothers ſell their children's clothes, the food that they ſhould have ate, and afterwards even the infants themſelves, in order to purchaſe the draught.

## CHAPTER VIII.

### *Of Cleanlineſs.*

THE want of cleanlineſs admits of no excuſe. Where water can be had for nothing, every perſon can be clean. The continual diſcharge from our bodies by perſpiration, renders frequent change of apparel neceſſary. Changing apparel greatly promotes the ſecretion from the ſkin, ſo neceſſary for health. When that matter which ought to be carried off by perſpiration, is either retained in the body, or reſorbed from dirty clothes, it muſt occaſion diſeaſes.

Diſeaſes of the ſkin are chiefly owing to want of cleanlineſs†. They may indeed be caught by infection, or brought on by poor

* It is amazing that improvements in arts, learning, and politeneſs, have not put the barbarous cuſtom of drinking to exceſs out of faſhion. It is indeed leſs common in South Britain than it was formerly; but it ſtill prevails very much in the North, where this relic of barbarity is miſtaken for hoſpitality. There no man is ſuppoſed to entertain his gueſts well, who does not make them drunk. Forcing people to drink, is certainly the greateſt piece of rudeneſs that any man can be guilty of. Manlineſs, complaiſance, or mere good-nature may induce a man to take his glaſs, if urged to it, at a time when he might as well take poiſon. The cuſtom of drinking to exceſs has long been out of faſhion in France; and, as it begins to loſe ground among the politer part of the Engliſh, we hope it will ſoon be baniſhed from every part of this iſland.

† Mr. Pot, in his ſurgical obſervations, mentions a diſeaſe which he calls the chimney-ſweepers cancer, as it is almoſt peculiar to that unhappy ſet of people. This he attributes to neglect of cleanlineſs, and with great juſtice. I am convinced, if that part of the body which is the ſeat of this cruel diſeaſe was kept clean by frequent waſhing, it would never happen.

living, unwholesome food, &c. but they will seldom continue long where cleanliness prevails. To the same cause must we impute the various kinds of vermin which infest the human body, houses, &c. These may always be banished by cleanliness alone, and wherever they abound, we have reason to believe it is neglected.

One common cause of putrid and malignant fevers is the want of cleanliness. These fevers commonly begin among the inhabitants of close dirty houses, who breathe unwholesome air, take little exercise, and wear dirty clothes. There the infection is generally hatched, which often spreads far and wide, to the destruction of many. Hence cleanliness may be considered as an object of public attention. It is not sufficient that I be clean myself, while the want of it in my neighbour affects my health as well as his own. If dirty people cannot be removed as a common nuisance, they ought at least to be avoided as infectious. All who regard their health should keep at a distance even from their habitations.

In places where great numbers of people are collected, cleanliness becomes of the greatest importance. It is well known that infectious diseases are communicated by tainted air. Every thing, therefore, which tends to poliute the air, or spread the infection, ought with the utmost care to be guarded against. For this reason, in great towns, no filth of any kind, should be permitted to lie upon the streets. Nothing is more apt to convey infection than the excrements of the diseased.

In many great towns the streets are little better than dunghills, being frequently covered with ashes, dung, and nastiness of every kind. Even slaughter-houses, or killing-shambles are often to be seen in the very centre of great towns. The putrid blood, excrements, &c. with which these places are generally covered, cannot fail to taint the air, and render it unwholesome. How easily might this be prevented by active magistrates, who have it always in their power to make proper laws relative to things of this nature, and to enforce the observance of them!

We are sorry, that the importance of general cleanliness, does not seem to be sufficiently understood by the magistrates of most great towns in Britain; though health, pleasure, and delicacy, all conspire to recommend an attention to it. Nothing can be more agreeable to the senses, more to the honour of the inhabitants, or more conducive to their health, than a clean town; nor can any thing impress a stranger with a more disrespectful idea of any people, than its opposite. Whatever pretensions people may make to learning, politeness, or civilization, while they neglect cleanliness, they are in a state of barbarity*.

* In ancient Rome the greatest men did not think cleanliness an object unworthy of their attention. Pliny says, the Cloacæ, or common sewers, for the conveyance of filth and nastiness from the city, were the greatest of all the public works; and bestows higher encomiums upon Tarquinius, Agrippa, and others who made and improved them, than on those who atchieved the greatest conquests.

The peaſants in moſt countries hold cleanlineſs in contempt. Were it not for the open ſituation of their houſes, they would often feel the bad effects of this diſpoſition. One ſeldom ſees a farm-houſe without a dunghill before the door, and frequently the cattle and their maſters lodge under the ſame roof. Peaſants are likewiſe extremely careleſs with reſpect to change of apparel, keeping their houſes, &c. clean. This is merely the effect of indolence and a dirty diſpoſition. Habit may indeed render it leſs diſagreeable to them, but no habit can ever make it ſalutary to wear dirty clothes or breathe unwholeſome air.

In camps, the ſtricteſt regard ſhould be paid to cleanlineſs. By negligence in this matter, infectious diſeaſes are often ſpread amongſt a whole army; and frequently more die of theſe, than by the ſword. The Jews during their encampments in the wilderneſs, received particular inſtructions with reſpect to cleanlineſs*. The rules enjoined them ought to be obſerved by all in the like ſituation. Indeed, the whole ſyſtem of laws delivered to that people, has a manifeſt tendency to promote cleanlineſs. Whoever conſiders the nature of their climate, the diſeaſes to which they were liable, and their dirty diſpoſition, will ſee the propriety of ſuch laws.

In moſt eaſtern countries, cleanlineſs makes a great part of their religion. The Mahometan, as well as the Jewiſh religion, enjoins various bathings, waſhings, and purifications. Theſe might be deſigned to repreſent inward purity; but they were at the ſame time calculated for the preſervation of health. However whimſical theſe waſhings may appear to ſome, few things would tend more to prevent diſeaſes than a proper attention to many of them. Were every perſon, for example, after viſiting the ſick, handling a dead body, or touching any thing that might convey infection, to waſh before he went into company, or ſat down to meat, he would run leſs hazard either of catching the infection himſelf, or of communicating it to others.

Frequent waſhing not only removes the filth and ſordes which adhere to the ſkin, but likewiſe promotes the perſpiration, braces the body, and enlivens the ſpirits. How refreſhed, how cheerful, and agreeable does one feel on being ſhaved, waſhed, and ſhifted; eſpecially when theſe offices have been neglected longer than uſual!

The eaſtern cuſtom of waſhing the feet, though leſs neceſſary in this country, is a very agreeable piece of cleanlineſs, and contributes greatly to the preſervation of health. The ſweat and dirt with which theſe parts are frequently covered, cannot fail to obſtruct the perſpiration. This piece of cleanlineſs would often pre-

* "Thou ſhalt have a place alſo without the camp, whither thou ſhalt go forth abroad; and thou ſhalt have a paddle upon thy weapon: and it ſhall be when thou ſhalt eaſe thyſelf abroad, thou ſhalt dig therewith, and ſhalt turn back, and cover that which cometh from thee, &c." Deut. chap. xxiii. ver. 12, 13.

vent colds and fevers. Were people careful to bathe their feet and legs in lukewarm water at night, after being expoſed to cold or wet through the day, they would ſeldom experience the ill effects which often proceed from theſe cauſes.

A proper attention to cleanlineſs is no where more neceſſary than on ſhipboard. If epidemical diſtempers break out there, no one can be ſafe. The beſt way to prevent them, is to take care that the whole company be cleanly in their clothes, bedding, &c. When infectious diſeaſes do break out, cleanlineſs is the moſt likely means to prevent their ſpreading and to prevent their returning afterwards, or being conveyed to other places. For this purpoſe, the clothes, bedding, &c. of the ſick ought to be carefully waſhed, and fumigated with brimſtone. Infection will lodge a long time in dirty clothes, and afterwards break out in the moſt terrible manner.

In places where great numbers of ſick people are collected together, cleanlineſs ought to be moſt religiouſly obſerved. The very ſmell in ſuch places is often ſufficient to make one ſick. It is eaſy to imagine what effect that is likely to have upon the diſeaſed. In an hoſpital or infirmary, where cleanlineſs is neglected, a perſon in perfect health has a greater chance to become ſick, than a ſick perſon has to get well.

Few things are more unaccountable than that neglect, or rather dread of cleanlineſs, which appears among thoſe who have the care of the ſick; they think it almoſt criminal to ſuffer any thing that is clean to come near a perſon in a fever, for example, and would rather allow him to wallow in all manner of filth, than change the leaſt bit of his linen. If cleanlineſs be neceſſary for perſons in health, it is certainly more ſo for the ſick. Many diſeaſes may be cured by cleanlineſs alone: moſt of them might be mitigated by it; and, where it is neglected, the ſlighteſt diſorders are often changed into the moſt malignant. The ſame miſtaken care which prompted people to prevent the leaſt admiſſion of freſh air to the ſick, ſeems to have induced them to keep them dirty. Both theſe deſtructive prejudices will, we hope, be ſoon entirely eradicated.

Cleanlineſs is agreeable to our nature. We cannot help approving it in others, even though we practiſe it not ourſelves. It ſooner attracts our regard than even finery itſelf, and often gains eſteem where that fails. It is an ornament to the higheſt as well as the loweſt ſtation, and cannot be diſpenſed with in either. Few virtues are of more importance to ſociety than general cleanlineſs. It ought to be carefully cultivated every where; but in populous cities, it ſhould be almoſt revered*.

* As it is impoſſible to be throughly clean without a ſufficient quantity of water, the magiſtrates of great towns ſhould be particularly attentive to this article. Moſt great towns in Britain are ſo ſituated as to be eaſily ſupplied with water; and thoſe perſons who will not make

## CHAPTER IX.

### *Of Infection.*

MANY diſeaſes are infectious. Every perſon ought, therefore, as far as he can, to avoid all communication with the diſeaſed. The common practice of viſiting the ſick, though often well meant, has many ill conſequences. We cannot help blaming ſuch as endanger their own or their neighbours' lives by a miſtaken friendſhip or an impertinent curioſity.

The houſes of the ſick, eſpecially in the country, are generally crowded from morning till night with idle viſitors. It is cuſtomary, in ſuch places, for ſervants and young people to wait upon the ſick by turns, and even to ſit up with them all night. It would be a miracle indeed ſhould ſuch always eſcape. Experience teaches us the danger of this conduct. People often catch fevers in this way, and communicate them to others, till at length they become epidemic.

It would be thought highly improper, for one who had not had the ſmall-pox, to wait upon a patient in that diſeaſe; yet many other fevers are almoſt as infectious as the ſmall-pox, and not leſs fatal. Some imagine that fevers prove more fatal in villages than in great towns, for want of proper medical aſſiſtance. This may ſometimes be the caſe; but we think it oftener proceeds from the cauſe above-mentioned.

Were a plan to be laid down for communicating infection, it could not be done more effectually than by the common method of viſiting the ſick. Such viſitors not only endanger themſelves and their connections, but likewiſe hurt the ſick. By crowding the houſe, they render the air unwholeſome, and by their private whiſpers and diſmal countenances diſturb the imagination of the patient, and depreſs his ſpirits. Perſons who are ill, eſpecially in fevers, ought to be kept as quiet as poſſible. The ſight of ſtrange faces, and every thing that diſturbs the mind, hurts them.

The common practice in country places of inviting great numbers of people to funerals, and crowding them into the ſame apartment where the corpſe lies, is another way of ſpreading infection. The infection does not always die with the patient. Every thing that comes into contact with his body while alive, receives the contagion, and ſome of them, as clothes, blankets, &c. will retain it for a long time. Perſons who die of infectious diſorders,

a proper uſe of it, after it is brought to their hand, deſerve to be puniſhed. The ſtreets of great towns, where water can be had, ought to be waſhed every day. This is the only effectual method for keeping them thoroughly clean; and upon trial, we are perſuaded it will be found the cheapeſt.

ought not to lie long unburied; and people ſhould keep as much as poſſible at a diſtance from them.

It would tend greatly to prevent the ſpreading of infectious diſeaſes, if thoſe in health were kept at a proper diſtance from the ſick. The Jewiſh legiſlator, among many other wiſe inſtitutions for preſerving health, has been peculiarly attentive to the means of preventing infection, or defilement as it is called, either from a diſeaſed perſon or a dead body. In many caſes the diſeaſed were to be ſeparated from thoſe in health; and it was deemed a crime even to approach their habitations. If a perſon only touched a diſeaſed or dead body, he was appointed to waſh himſelf in water, and to keep for ſome time at a diſtance from ſociety.

Infectious diſeaſes are often communicated by clothes. It is extremely dangerous to wear apparel which has been worn by the deceaſed, unleſs it has been well waſhed and fumigated, as infection may lodge a long time in it, and afterwards produce very tragical effects. This ſhows the danger of buying at random the clothes which have been worn by other people.

Infectious diſorders are frequently imported. Commerce, together with the riches of foreign climes, brings their diſeaſes. Theſe do often more than counterbalance all the advantages of that trade by means of which they are introduced. It is to be regretted, that ſo little care is commonly beſtowed, either to prevent the introduction or ſpreading of infectious maladies. Some attention indeed is generally paid to the plague; but other diſeaſes paſs unregarded*.

Infection is often ſpread through cities, by jails, hoſpitals, &c. Theſe are frequently ſituated in the very middle of populous towns; and when infectious diſeaſes break out in them, it is impoſſible for the inhabitants to eſcape. Did magiſtrates pay any regard to the health of the people, this evil might be eaſily remedied.

Many are the cauſes which tend to diffuſe infection through populous cities. The whole atmoſphere of a large town is one contaminated maſs, abounding with various kinds of infection, and muſt be pernicious to health. Such as are obliged to live in large cities, ought to chooſe an open ſituation; to avoid narrow, dirty,

* Were the tenth part of the care taken to prevent the importation of diſeaſes, that there is to prevent ſmuggling, it would be attended with many happy conſequences. This might eaſily be done by appointing a phyſician at every conſiderable ſea-port, to inſpect the ſhip's company, paſſengers, &c. before they came aſhore, and, if any fever or other infectious diſorder prevailed, to order the ſhip to perform a ſhort quarantine, and to ſend the ſick to ſome hoſpital or proper place to be cured. He might likewiſe order all the clothes, bedding, &c. which had been uſed by the ſick during the voyage, to be either deſtroyed, or thoroughly cleanſed by fumigation, &c. before any of it were ſent aſhore. A ſcheme of this kind, if properly conducted, would prevent many fevers, and other infectious diſeaſes, from being brought by ſailors into ſea-port towns, and by this means diffuſed all over the country.

crowded ſtreets; to keep their own houſes and offices clean; and to be as much abroad in the open air as their time will permit.

It would tend greatly to prevent the ſpreading of infectious diſeaſes, were proper nurſes every-where employed to take care of the ſick. This might often ſave a family, or even a whole town, from being infected by one perſon. Not that people ſhould abandon their friends or relations in diſtreſs, but only be on their guard againſt being too much in company with thoſe who are afflicted with diſeaſes of an infectious nature.

Such as wait upon the ſick in infectious diſeaſes run very great hazard. They ſhould ſtuff their noſes with tobacco, or ſome other ſtrong ſmelling herb, as rue, tanſy, or the like. They ought likewiſe to keep the patient very clean, to ſprinkle the room where he lies with vinegar, or other ſtrong acids, frequently to admit a ſtream of freſh air into it, and to avoid the ſmell of his breath as much as they can. They ought never to go into company without having changed their clothes and waſhed their hands; otherwiſe, if the diſeaſe be infectious, they will in all probability carry the contagion along with them*.

A due attention to thoſe things which tend to diffuſe infection would be of great importance in preventing diſeaſes. As moſt diſeaſes are in ſome degree infectious, no one ſhould continue long with the ſick, except the neceſſary attendants. I mean not however, by this caution, to deter thoſe whoſe duty or office leads them to wait upon the ſick, from ſuch a laudable and neceſſary employment.

Many things are in the power of the magiſtrate which would tend to prevent the ſpreading of infection; as the promoting of publie cleanlineſs; removing jails, hoſpitals, burying grounds, and other places where infection may be generated, at a proper diſtance from great towns†; widening the ſtreets; pulling down uſeleſs walls, and taking all methods to promote a free circulation of air through every part of the town, &c. Public hoſpitals, or proper places of reception for the ſick, provided they were kept clean, well ventilated, and placed in an open ſituation, would likewiſe tend to prevent the ſpreading of infection. Such places of

* There is reaſon to believe that infection is often conveyed from one place to another by the careleſſneſs of the faculty themſelves. Many phyſicians affect a familiar way of ſitting upon the patient's bedſide, and holding his arm for a conſiderable time. If the patient has the ſmall-pox, or any other infectious diſeaſe, there is no doubt but the doctor's hands, clothes, &c. will carry away ſome of the infection; and, if he goes directly to viſit another patient without waſhing his hands, changing his clothes, or being expoſed to the open air, which is not ſeldom the caſe, is it any wonder that he ſhould carry the diſeaſe along with him? Phyſicians not only endanger others, but alſo themſelves, by this practice. And indeed they ſometimes ſuffer for their want of care.

† The ancients would not ſuffer even the temples of their gods where the ſick reſorted, to be built within the walls of a city.

reception would prevent the poor, when ſick, from being viſited by their idle or officious neighbours. They would likewiſe render it unneceſſary for ſick ſervants to be kept in their maſters houſes. Maſters had better pay for having their ſervants taken care of in an hoſpital, than run the hazard of having an infectious diſeaſe diffuſed among a numerous family. Sick ſervants and poor people, when placed in hoſpitals, are not only leſs apt to diffuſe infection among their neighbours, but have likewiſe the advantage of being well attended.

We are not, however, to learn that hoſpitals, inſtead of preventing infection, may become the means of diffuſing it. When they are placed in the middle of great towns; when numbers of patients are crowded together into ſmall apartments; when there is a conſtant communication kept up between the citizens and the patients; and when cleanlineſs and ventilation are neglected, they become neſts for hatching diſeaſes, and every one who goes into them, not only runs a riſk of receiving infection himſelf, but likewiſe of communicating it to others. This is not the fault of hoſpitals, but of thoſe who have the management of them. It were to be wiſhed, that they were both more numerous, and upon a more reſpectable footing, as that would induce people to go into them with leſs reluctance. This is the more to be deſired, becauſe moſt of the putrid fevers and other infectious diſorders break out among the poor, and are by them communicated to the better ſort. Were proper attention paid to the firſt appearances of ſuch diſorders, and the patients early conveyed to an hoſpital, we ſhould ſeldom ſee a putrid fever, which is almoſt as infectious as the plague, become epidemic.

## CHAPTER X.

### *Of the Paſſions.*

THE paſſions have great influence both in the cauſe and cure of diſeaſes. How the mind affects the body, will, in all probability ever remain a ſecret. It is ſufficient for us to know, that there is eſtabliſhed reciprocal influence between the mental and corporeal parts, and that whatever injures the one, diſorders the other.

### *Of Anger.*

THE paſſion of anger ruffles the mind, diſtorts the countenance, hurries on the circulation of the blood, and diſorders the whole vital and animal functions. It often occaſions fevers, and other acute diſeaſes; and ſometimes even ſudden death. This paſſion

is peculiarly hurtful to the delicate, and thoſe of weak nerves. Such perſons frequently loſe their lives by a violent fit of anger, and I would adviſe them to guard againſt the exceſs of this paſſion with the utmoſt care.

It is not indeed always in our power to prevent being angry; but we may ſurely avoid harbouring reſentment in our breaſt. Reſentment preys upon the mind, and occaſions the moſt obſtinate chronical diſorders which gradually waſte the conſtitution. Nothing ſhows true greatneſs of mind more than to forgive injuries; it promotes the peace of ſociety, and greatly conduces to our own eaſe, health, and felicity.

Such as value health ſhould avoid violent guſts of anger, as they would the moſt deadly poiſon. Neither ought they to indulge reſentment, but to endeavour at all times to keep their minds calm and ſerene. Nothing tends ſo much to the health of the body as a conſtant tranquillity of mind.

## *Of Fear.*

THE influence of fear, both in occaſioning and aggravating diſeaſes, is very great. No man ought to be blamed for a decent concern about life; but too great a deſire to preſerve it is often the cauſe of loſing it. Fear and anxiety, by depreſſing the ſpirits, not only diſpoſe us to diſeaſes, but often render thoſe diſeaſes fatal which an undaunted mind would overcome.

Sudden fear has generally violent effects. Epileptic fits, and other convulſive diſorders, are often occaſioned by it. Hence the danger of that practice, ſo common among young people, of frightening one another. Many have loſt their lives, and others have been rendered miſerable, by frolics of this kind. It is dangerous to tamper with the human paſſions. The mind may eaſily be thrown into ſuch diſorder as never again to act with regularity.

But the gradual effects of fear prove more hurtful. The conſtant dread of ſome future evil, by dwelling upon the mind, often occaſions the very evil itſelf. Hence it comes to paſs, that ſo many die of thoſe very diſeaſes of which they long had a dread, or which had been impreſſed on their minds by ſome accident, or fooliſh prediction. This, for example, is often the caſe with women in child-bed. Many of thoſe who die in that ſituation are impreſſed with the notion of their death a long time before it happens; and there is reaſon to believe that this impreſſion is often the cauſe of it.

The methods taken to impreſs the minds of women with apprehenſions of the great pain and peril of child-birth, are very hurtful. Few women die in labour, though many loſe their lives after it; which may be thus accounted for. A woman after deli-

very, finding herſelf weak and exhauſted, immediately apprehends ſhe is in danger; but this fear ſeldom fails to obſtruct the neceſſary evacuations, upon which her recovery depends. Thus, the ſex often fall a ſacrifice to their own imaginations, when there would be no danger, did they apprehend none.

It ſeldom happens that two or three women in a great town die in child-bed, but their death is followed by many others. Every woman of their acquaintance who is with child dreads the ſame fate, and the diſeaſe becomes epidemical by the mere force of imagination. This ſhould induce pregnant women to deſpiſe fear, and by all means to avoid thoſe tattling goſſips who are continually buzzing in their ears the misfortunes of others. Every thing that may in the leaſt alarm a pregnant or child-bed woman, ought with the greateſt care to be guarded againſt.

Many women have loſt their lives in child-bed by the old ſuperſtitious cuſtom, ſtill kept up in moſt parts of Britain, of tolling the pariſh bell for every perſon who dies. People who think themſelves in danger are very inquiſitive; and if they come to know that the bell tolls for one who died in the ſame ſituation with themſelves, what muſt be the conſequence? At any rate they are apt to ſuppoſe that this is the caſe, and it will often be found a difficult matter to perſuade them of the contrary.

But this cuſtom is not pernicious to child-bed women only. It is hurtful in many other caſes. When low fevers, in which it is difficult to ſupport the patient's ſpirits, prevail, what muſt be the effect of a funeral peal ſounding five or ſix times a day in his ears? No doubt his imagination will ſuggeſt that others died of the diſeaſe under which he labours. This apprehenſion will have a greater tendency to depreſs his ſpirits, than all the cordials of medicine will have to raiſe them.

If we have not ſenſe enough to aboliſh this uſeleſs piece of ceremony, we ought to keep the ſick as much from hearing it as poſſible, and from every other thing that may tend to alarm them. So far however is this from being generally attended to, that many make it their buſineſs to viſit the ſick, on purpoſe to whiſper diſmal ſtories in their ears. Such may paſs for ſympathizing friends, but they are their enemies. All who wiſh well to the ſick ought to keep ſuch perſons at the greateſt diſtance from them.

A cuſtom has long prevailed among phyſicians, of prognoſticating, or foretelling the iſſue of the diſeaſe. Vanity introduced this practice, and ſtill ſupports it, in ſpite of common ſenſe and the ſafety of mankind. I have known a phyſician barbarous enough to boaſt, that he pronounced more ſentences than all his Majeſty's judges. Would to God that ſuch ſentences were not often equally fatal! It may indeed be alleged, that the doctor does not declare his opinion before the patient. So much the worſe. A ſenſible patient had better hear what the doctor ſays, than learn it from the diſconſolate looks, the watery eyes, and the broken whiſpers

of thoſe about him. It ſeldom happens, when the doctor gives an unfavourable opinion, that it can be concealed from the patient. The very embarraſſment which the friends and attendants ſhow in diſguiſing what he has ſaid, is generally ſufficient to diſcover the truth.

Heaven has concealed from mortals their fate; and we do not ſee what right any man has to announce the death of another, eſpecially if ſuch a declaration has a chance to kill him. Mankind are indeed very fond of prying into future events, and ſeldom fail to ſolicit the phyſician for his opinion. A doubtful anſwer, or one that may tend rather to encourage the hopes of the ſick, is ſurely the moſt ſafe. This conduct could neither hurt the patient nor the phyſician. Nothing tends more to deſtroy the credit of phyſic than thoſe bold prognoſticators, who by the bye, are generally the moſt ignorant of the faculty. The miſtakes which daily happen in this way are ſo many ſtanding proofs of human vanity, and the weakneſs of ſcience.

There are caſes where the phyſician ought to give intimation of the patient's danger to ſome of his near connections; though even this ought always to be done with the greateſt caution: but it never can be neceſſary in any caſe that the whole town and country ſhould know, immediately after the doctor has made his firſt viſit, that he has no hopes of his patient's recovery. Perſons whoſe impertinent curioſity leads them to queſtion the phyſician with regard to the fate of his patient, deſerve no anſwer.

The vanity of foretelling the fate of the ſick is not peculiar to the faculty. Others follow their example, and thoſe who think themſelves wiſer than their neighbours often do much hurt in this way. Humanity ſurely calls upon every one to comfort the ſick, and not to add to their affliction by alarming their fears. A friend, or even a phyſician, may often do more good by a mild and ſympathizing behaviour than by medicine, and ſhould never neglect to adminiſter that greateſt of all cordials, Hope.

## *Of Grief.*

GRIEF is the moſt deſtructive of all the paſſions. Its effects are permanent, and when it ſinks deep into the mind, it generally proves fatal. Anger and fear, being of a more violent nature, ſeldom laſt long; but grief often changes into a fixed melancholy, which preys upon the ſpirits, and waſtes the conſtitution. This paſſion ought not to be indulged. It may generally be conquered at the beginning; but when it has gained ſtrength, all attempts to remove it are vain.

No perſon can prevent misfortunes in life; but it ſhows true greatneſs of mind to bear them with ſerenity. Many perſons make

a merit of indulging grief, and when misfortunes happen, they obſtinately refuſe all conſolation, till the mind, overwhelmed with melancholy, ſinks under the load. Such conduct is not only deſtructive to health, but inconſiſtent with reaſon, religion, and common ſenſe.

Change of ideas is as neceſſary for health as change of poſture. When the mind dwells long upon one ſubject, eſpecially of a diſagreeable nature, it hurts the whole functions of the body. Grief indulged ſpoils the digeſtion and deſtroys the appetite; hence the ſpirits are depreſſed, the nerves relaxed, the bowels inflated with wind, and the humours, for want of freſh ſupplies of chyle, vitiated. Many an excellent conſtitution has been ruined by a family-misfortune, or any thing that occaſions exceſſive grief.

It is utterly impoſſible, that any perſon of a dejected mind ſhould enjoy health. Life may indeed be dragged out for a few years: but whoever would live to a good old age, muſt be good-humoured and cheerful. This indeed is not altogether in our own power; yet our temper of mind, as well as our actions, depends greatly upon ourſelves. We can either aſſociate with cheerful or melancholy companions, mingle in the amuſements and offices of life, or ſit ſtill and brood over our calamities as we chooſe. Theſe, and many ſuch things, are certainly in our power, and from theſe the mind generally takes its caſt.

The variety of ſcenes which preſent themſelves to the ſenſes, were certainly deſigned to prevent our attention from being too long fixed upon any one object. Nature abounds with variety, and the mind, unleſs fixed down by habit, delights in contemplating new objects. This at once points out the method of relieving the mind in diſtreſs. Turn the attention frequently to new objects. Examine them for ſome time. When the mind begins to recoil, ſhift the ſcene. By this means, a conſtant ſucceſſion of new ideas may be kept up, till the diſagreeable ones entirely diſappear. Thus travelling, the ſtudy of any art or ſcience, reading or writing on ſuch ſubjects as deeply engage the attention, will ſooner expel grief than the moſt ſprightly amuſements.

As the body cannot be healthly unleſs it be exerciſed; neither can the mind. Indolence nouriſhes grief. When the mind has nothing elſe to think of but calamities, no wonder that it dwells there. Few people who purſue buſineſs with attention are hurt by grief. Inſtead therefore of abſtracting ourſelves from the world or buſineſs, when misfortunes happen, we ought to engage in it with more than uſual attention, to diſcharge with double diligence the functions of our ſtation, and to mix with friends of a cheerful and ſocial temper.

Innocent amuſements are not to be neglected. Theſe, by leading the mind inſenſibly to the contemplation of agreeable objects, help to diſpel the gloom which misfortunes caſt over it. They make time ſeem leſs tedious, and have many other happy effects.

Some perſons, when overwhelmed with grief, betake themſelves to drinking. This is making the cure worſe than the diſeaſe. It ſeldom fails to end in the ruin of fortune, character, and conſtitution.

## *Of Love.*

LOVE is perhaps the ſtrongeſt of all the paſſions; at leaſt, when it becomes violent, it is leſs ſubject to the controul either of the underſtanding or will, than any of the reſt. Fear, anger, and ſeveral other paſſions are neceſſary for the preſervation of the individual, but love is neceſſary for the continuation of the ſpecies itſelf: It was therefore proper that this paſſion ſhould be deeply rooted in the human breaſt.

Though love be a ſtrong paſſion, it is ſeldom ſo rapid in its progreſs as ſeveral of the others. Few perſons fall deſperately in love all-at-once. We would therefore adviſe every one, before he tampers with this paſſion, to conſider well the probability of his being able to obtain the object of his love. When that is not likely, he ſhould avoid every occaſion of increaſing it. He ought immediately to fly the company of the beloved object; to apply his mind attentively to buſineſs or ſtudy; to take every kind of amuſement; and above all, to endeavour, if poſſible, to find another object which may engage his affections, and which it may be in his power to obtain.

There is no paſſion with which people is ſo ready to tamper as love, although none is more dangerous. Some men make love for amuſement, others from mere vanity, or on purpoſe to ſhow their conſequence with the fair. This is perhaps the greateſt piece of cruelty, which any one can be guilty of. What we eagerly wiſh for we eaſily credit. Hence, the too credulous fair are often betrayed into a ſituation wich is truly deplorable, before they are able to diſcover that the pretended lover was only in jeſt. But there is no jeſting with this paſſion. When love has got to a certain height, it admits of no other cure but the poſſeſſion of its object, which in this caſe ought always if poſſible to be obtained*.

* The conduct of parents with regard to the diſpoſal of their children in marriage is often very blameable. An advantageous match is the conſtant aim of parents; while their children often ſuffer a real martyrdom betwixt their inclinations and duty. The firſt thing which parents ought to conſult in diſpoſing of their children in marriage, is certainly their inclinations. Were due regard always paid to theſe, there would be fewer unhappy couples, and parents would not have ſo often cauſe to repent the ſeverity of their conduct, after a ruined conſtitution, a loſt character, or a diſtracted mind, has ſhown them their miſtake.

### *Of Religious Melancholy.*

MANY perſons of a religious turn of mind behave as if they thought it a crime to be cheerful. They imagine the whole of religion conſiſts in certain mortifications, or denying themſelves the ſmalleſt indulgence, even of the moſt innocent amuſements. A perpetual gloom hangs over their countenances, while the deepeſt melancholy preys upon their minds. At length the faireſt proſpects vaniſh, every thing puts on a diſmal appearance, and thoſe very objects which ought to give delight, afford nothing but diſguſt. Life itſelf becomes a burden, and the unhappy wretch, perſuaded that no evil can equal what he feels, often puts an end to his own exiſtence.

Perſons whoſe buſineſs it is to recommend religion to others, ſhould beware of dwelling too much on gloomy ſubjects. That peace and tranquillity of mind, which true religion is calculated to inſpire, is a more powerful argument in its favour, than all the terrors that can be uttered. Terror may indeed deter men from outward acts of wickedneſs, but can never inſpire them with that love of God, and real goodneſs of heart, in which alone true religion conſiſts.

The beſt way to counteract the violence of any paſſion, is to keep the mind cloſely engaged in ſome uſeful purſuit.

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## CHAPTER XI.

### *Of the Common Evacuations.*

THE principal evacuations from the human body are thoſe by ſtool, urine and inſenſible perſpiration. None of theſe can be long obſtructed without impairing health. When that which ought to be thrown out of the body is too long retained, it occaſions a plethora, or too great fulneſs of the veſſels.

### *Of the Evacuation by Stool.*

FEW things conduce more to health than keeping the body regular. When the fœces lie too long in the bowels, they vitiate the humours; and when they are too ſoon diſcharged, the body is not ſufficiently nouriſhed. A medium is to be deſired, which can only be obtained by regularity in diet, ſleep and exerciſe. Whenever the body is not regular, there is reaſon to ſuſpect a fault in one or other of theſe.

Perſons who eat and drink at irregular hours, and who eat vari-

ous kinds of food, and drink of several different liquors at every meal, have no reason to expect either that their digestion will be good, or their discharges regular. Irregularity in eating and drinking, disturbs every part of the animal œconomy, and never fails to occasion diseases. Either too much or too little food will have this effect. The former indeed generally occasions looseness, and the latter costiveness; but both have a tendency to hurt the health.

It would be difficult to ascertain the exact number of stools which may be consistent with health, as these differ in the different periods of life, in different constitutions, and even in the same constitution under a different regimen of diet, exercise, &c. It is however generally allowed, that one stool a-day is sufficient for an adult, and that less is hurtful. But this, like most general rules, admits of many exceptions. I have known persons in perfect health who did not go to stool above once a-week. Such a degree of costiveness is not safe; though the person who labours under it may for some time enjoy tolerable health, yet at length it may occasion diseases.

One method of procuring a stool every day is to rise betimes, and go abroad in the open air. Not only the posture in bed is unfavourable to regular stools, but also the warmth. This, by promoting the perspiration, lessens all the other discharges.

The method recommended for this purpose by Mr. Locke, is likewise very proper, viz. to solicit Nature, by going regularly to stool, every morning whether one has a call or not. Habits of this kind may be acquired, which will in time become natural.

Persons who have frequent recourse to medicines for preventing costiveness, seldom fail to ruin their constitutions. Purging medicines frequently repeated, weaken the bowels, hurt the digestion, and every dose makes way for another, till at length they become as necessary as daily bread. Those who are troubled with costiveness, ought rather, if possible, to remove it by diet than drugs. They should go thinly clothed, and avoid every thing of an astringent or heating nature. The diet and other regimen necessary in this case, will be found under the article *Costiveness*, where this state of the bowels is treated as a disease.

Such persons as are troubled with a habitual looseness ought likewise to suit their diet to the nature of their complaint. They should use food which braces and strengthens the bowels, and which is rather of an astringent quality, as wheat-bread made of the finest flour, cheese, eggs, rice boiled in milk, &c. Their drink should be red-port, claret, brandy and water, in which toasted bread has been boiled, and such like.

As an habitual looseness is often owing to an obstructed perspiration, persons affected with it ought to keep their feet warm, to wear flannel next their skin, and take every other method to promote the perspiration. Further directions, with regard to the treatment of this complaint, will be found under the article *Looseness*.

## *Of Urine.*

SO many things tend to change both the quantity and appearances of the urine, that it is very difficult to lay down any determined rules for judging of either*. Dr. Cheyne says, the urine ought to be equal to three-fourths of the liquid part of our aliment. But suppose any one were to take the trouble of measuring both, he would find, that every thing which altered the degree of perspiration, would alter this proportion, and likewise, that different kinds of aliment would afford very different quantities of urine. For these, and other reasons, no rule can be given for judging of the precise quantity of urine which ought to be discharged, yet a person of common sense will seldom be at a loss to know when it is in either extreme.

As a free discharge of urine not only prevents, but actually cures, many diseases, it ought, by all means, to be promoted; and every thing that may obstruct it should be carefully avoided. Both the secretion and discharge of urine are lessened by a sedentary life, sleeping on beds that are too soft and warm, food of a dry and heating quality, liquors which are astringent and heating, as red-port, claret, and such like. Those who suspect that their urine is in too small quantity, or who have any symptoms of the gravel, ought to avoid these things, and whatever else has a tendency to lessen the quantity of their urine.

When the urine is too long retained, it is not only re-absorbed or taken up again into the mass of fluids, but, by stagnating in the bladder, it becomes thicker, the more watry parts flying off first, and the more gross and earthy remaining behind. By the constant tendency which these have to concrete, the formation of stones and gravel in the bladder is promoted. Hence, indolent and sedentary people are much more liable to these diseases, than persons of a more active life.

* It has long been an observation among physicians, that the appearances of the urine are very uncertain, and very little to be depended on. No one will be surprised at this, who considers how many ways it may be affected, and consequently have its appearance altered. The passions, the state of the atmosphere, the quantity and quality of the food, the exercise, the clothing, the state of the other evacuations, and numberless other causes, are sufficient to induce a change either in the quantity or appearance of the urine. Any one who attends to this, will be astonished at the impudence of those daring quacks, who pretend to find out diseases, and prescribe to patients from the bare inspection of their urine. These impostors, however, are very common all over Britain, and by the amazing credulity of the populace, many of them amass considerable fortunes. Of all the medical prejudices which prevail in this country, that in favour of urine-doctors is the strongest. The common people have still an unlimited faith in their skill, although it has been demonstrated that no one of them is able to distinguish the urine of a horse, or any other animal, from that of a man.

Many perſons have loſt their lives, and others have brought on very tedious, and even incurable diſorders, by retaining their urine too long, from a falſe delicacy. When the bladder has been over-diſtended, it often looſes its power of action altogether, or becomes paralytic, and is rendered unable either to retain the urine, or expel it properly. The calls of nature ought never to be poſtponed. Delicacy is a virtue; but that can never be reckoned true delicacy, which induces any one to riſk his health or hazard his life.

Urine may be in too great as well as too ſmall a quantity, by drinking large quantities of weak watery liquors; by the exceſſive uſe of alkaline ſalts, or any thing that ſtimulates the kidnies, dilutes the blood, &c. This diſorder very ſoon weakens the body, and induces a conſumption. It is difficult to cure, but may be mitigated by ſtrenghtening diet and aſtringent medicines, ſuch are recommended under the article *Diabetes*.

## *Of the Perſpiration.*

INSENSIBLE perſpiration is generally reckoned the greateſt of all the diſcharges from the human body. It is of ſo great importance to health, that few diſeaſes attack us while it goes properly on; but when it is obſtructed, the whole frame is ſoon diſordered. This diſcharge, however, being leſs perceptible than any of the reſt, is conſequently leſs attended to. Hence, acute fevers, rheumatiſms, agues, &c. often proceed from obſtructed perſpiration before we are aware of its having taken place.

On examining patients, we find moſt of them impute their diſeaſes either to violent colds which they had caught, or to ſlight ones which had been neglected. For this reaſon, inſtead of a critical inquiry into the nature of the perſpiration, its difference in different ſeaſons, climates, conſtitutions, &c. we ſhall endeavour to point out the cauſes which moſt commonly obſtruct it, and to ſhow how far they may be either avoided, or have their influence counteracted by timely care. The want of a due attention to theſe, coſts Britain annually ſome thouſands of uſeful lives.

## *Changes in the Atmoſphere.*

ONE of the moſt common cauſes of obſtructed perſpiration, or catching cold, in this country, is the changeableneſs of the weather, or ſtate of the atmoſphere. There is no place where ſuch changes happen more frequently than in Britain. With us, the degrees of heat and cold are not only very different in the differ-

ent seasons of the year, but often change almost from one extreme to another in a few days, and sometimes even in the course of one day. That such changes must affect the state of the perspiration is obvious to every one*.

The best method of fortifying the body against the changes of the weather, is to be abroad every day. Those who keep most within doors are most liable to catch cold. Such persons generally render themselves so delicate as to feel even the slightest changes in the atmosphere, and by their pains, coughs, and oppressions of the breast, &c. they become a kind of living barometers.

## *Wet Clothes.*

WET clothes not only by their coldness obstruct the perspiration, but their moisture, by being absorbed, or taken up into the body, greatly increases the danger. The most robust constitution is not proof against the danger arising from wet clothes; they daily occasion fevers, rheumatisms, and other fatal disorders, even in the young and healty.

It is impossible for people who go frequently abroad, to avoid sometimes being wet. But the danger might generally be lessened, if not wholly prevented, by changing their clothes soon; when this cannot be done, they should keep in motion till they be dry. So far are many from taking this precaution, that they often sit or lie down in the fields with their clothes wet, and frequently sleep even whole nights in this condition. The frequent instances which we have of the fatal effects of this conduct, ought to deter others from being guilty of it.

## *Wet Feet.*

EVEN wet feet often occasion fatal diseases. The cholic, inflammations of the breast and of the bowels, the iliac passion, cholera morbus, &c. are often occasioned by wet feet. Habit will render this less dangerous; but it ought, as far as possible, to be avoided. The delicate, and those who are not accustomed to have their clothes or feet wet, should be peculiarly careful in this respect.

* I never knew a more remarkable instance of the uncertainty of the weather in this country, than happened while I was writing these notes. This morning, August 14, 1783, the thermometer in the shade was down at fifty-three degrees, and a very few days ago it stood above eighty. No one who reflects on such great and sudden changes in the atmosphere, will be surprised, to find colds, coughs, rheums, with other affections of the breast and bowels, so common in this country.

## *Night Air.*

THE perſpiration is often obſtructed by night-air; even in ſummer, this ought to be avoided. The dews which fall plentifully after the hotteſt day, make the night more dangerous than when the weather is cool. Hence, in warm countries, the evening-dews are more hurtful than where the climate is more temperate.

It is very agreeable after a warm day, to be abroad in the cool evening; but this is a pleaſure to be avoided by all who value their health. The effects of evening-dews are gradual indeed, and almoſt imperceptible; but they are not the leſs to be dreaded: We therefore adviſe travellers, labourers, and all who are much heated by day, carefully to avoid them. When the perſpiration has been great, theſe become dangerous in proportion. By not attending to this, in flat marſhy countries, where the exhalations and dews are copious, labourers are often ſeized with intermitting fevers, quinſeys, and other dangerous diſeaſes.

## *Damp Beds.*

BEDS become damp, either from their not being uſed, ſtanding in damp houſes, or in rooms without fire. Nothing is more to be dreaded by travellers than damp beds, which are very common in all places where fuel is ſcarce. When a traveller, cold and wet, arrives at an inn, he may, by means of a good fire, warm diluting liquor, and a dry bed, have the perſpiration reſtored; but if he be put into a cold room, and laid on a damp bed, it will be more obſtructed, and the worſt conſequences will enſue. Travellers ſhould avoid inns which are noted for damp beds, as they would a houſe infected with the plague, as no man, however robuſt, is proof againſt the danger ariſing from them.

But inns are not the only places where damp beds are to be met with. Beds kept in private families for the reception of ſtrangers are often equally dangerous. All kinds of linen and bedding, when not frequently uſed, become damp. How then is it poſſible that beds, which are not ſlept in above two or three times a year, ſhould be ſafe? Nothing is more common than to hear people complain of having caught cold by changing their bed. The reaſon is obvious: Were they careful never to ſleep in a bed but what was frequently uſed, they would ſeldom find any ill conſequences from a change.

Nothing is more to be dreaded by a delicate perſon, when on a viſit, than being laid in a bed which is kept on purpoſe for ſtrangers. That ill-judged piece of complaiſance becomes a real injury. All

the bad conſequences from this quarter might eaſily be prevented in private families, by cauſing their ſervants to ſleep in the ſpare-beds, and reſign them to ſtrangers when they come. In inns, where the beds are uſed almoſt every night, nothing elſe is neceſſary than to keep the rooms well ſeaſoned by frequent fires, and the linen dry.

That baneful cuſtom, ſaid to be practiſed in many inns, of damping ſheets, and preſſing them, in order to ſave waſhing, and afterwards laying them on the beds, ought, when diſcovered, to be puniſhed with ſeverity. It is really a ſpecies of murder, and will often prove as fatal as poiſon or gun-ſhot. Indeed, no linen, eſpecially if it has been waſhed in winter, ought to be uſed until it has been expoſed for ſome-time to the fire; nor is this operation leſs neceſſary for linen waſhed in ſummer, if it has lain by for any length of time. This caution is the more needful, as gentlemen are often exceedingly attentive to what they eat or drink at an inn, yet pay little regard to a circumſtance of more importance*.

## *Damp Houſes*

FREQUENTLY produce the like ill-conſequences; for this reaſon, thoſe who build, ſhould be careful to chooſe a dry ſituation. A houſe which ſtands on a damp, marſhy ſoil or deep clay, will never be thoroughly dry. All houſes, unleſs where the ground is exceeding dry, ſhould have the firſt floor a little raiſed. Servants and others, who are obliged to live in cellars and ſunk ſtories, ſeldom continue long in health: Maſters ought ſurely to pay ſome regard to the health of their ſervants, as well as to their own.

Nothing is more common than for people, merely to avoid ſome trifling inconveniency, to hazard their lives, by inhabiting a houſe almoſt as ſoon as the maſons, plaſterers, &c. have done with it: Such houſes are not only dangerous from their dampneſs, but likewiſe from the ſmell of lime, paint, &c. The aſthmas, conſumptions, and other diſeaſes of the lungs, ſo incident to people who work in theſe articles, are ſufficient proofs of their being unwholeſome.

Rooms are often rendered damp by an unſeaſonable piece of cleanlineſs; I mean the pernicious cuſtom of waſhing them immediately before company is put into them. Moſt people catch cold, if they ſit but a very ſhort time in a room that has been lately waſh-

* If a perſon ſuſpects that his bed is damp, the ſimple precaution of taking off the ſheets and lying in the blankets, with all, or moſt of his clothes on, will prevent all danger. I have practiſed this for many years, and never have been hurt by damp beds; though no conſtitution, without care, is proof againſt their baneful influence.

ed; the delicate ought carefully to avoid such a situation, and even the robust are not always proof against its influence*.

## *Sudden Transitions from Heat to Cold.*

PERSPIRATION is frequently obstructed by sudden transitions from heat to cold. Colds are seldom caught, unless when people have been too much heated. Heat rarifies the blood, quickens the circulation, and increases the perspiration; but when these are suddenly checked, the consequences must be bad. It is impossible for labourers not to be too hot upon some occasions; but it is generally in their power to let themselves cool gradually, to put on their clothes when they leave off work, to make choice of a dry place to rest themselves in, and to avoid sleeping in the open fields. These easy rules, if observed, would often prevent fevers and other fatal disorders.

It is very common for people, when hot, to drink freely of cold water, or small liquors. This conduct is extremely dangerous. Thirst indeed is hard to bear, frequently gets the better of reason, and makes us do what our judgment disapproves. Every peasant, however, knows, if his horse be permitted to drink his belly-full of cold water after violent exercise, and be immediately put into the stable, or suffered to remain at rest, that it will kill him. This they take the utmost care to prevent. It were well if they were equally attentive to their own safety.

Thirst may be quenched many ways without swallowing large quantities of cold liquor. The fields afford a variety of acid fruits and plants, the very chewing of which would abate thirst. Water kept in the mouth for some time, and spit out again, if frequently repeated, will have the same effect. If a bit of bread be eaten along with a few mouthfuls of water, it will both quench thirst more effectually, and make the danger less. When a person is extremely hot, a mouthful of brandy, or other spirits, if it can be obtained, ought to be preferred to any thing else. But if any one has been so foolish, when hot, as to drink freely of cold liquor, he ought to continue his exercise at least, till what he drank be thoroughly warmed upon his stomach.

It would be tedious to enumerate all the bad effects which flow from drinking cold liquors when the body is hot. Sometimes this has occasioned immediate death. Hoarseness, quinseys, and fevers of various kinds, are its common consequences. Neither is it safe

* People imagine, if a good fire is made in a room, after it has been washed, that there is no danger from sitting in it; but this increases the danger. The evaporation excited by the fire generates cold, and renders the damp more active.

when warm, to eat freely of raw fruits, fallads, or the like. Theſe, indeed, have not ſo ſudden an effect on the body as cold liquors, but they are notwithſtanding dangerous, and ought to be avoided.

Sitting in a warm room, and drinking hot liquors till the pores are quite open, and immediately going into the cold air, is extremely dangerous. Colds, coughs and inflammations of the breaſt, are the uſual effects of this conduct: Yet nothing is more common than for people, after they have drank warm liquors for ſeveral hours, to walk or ride a number of miles in the coldeſt night, or to ramble about in the ſtreets*.

People are very apt, when a room is hot, to throw open a window, and to ſit near it. This is a moſt dangerous practice. A perſon had better ſit without-doors than in ſuch a ſituation, as the current of air is directed againſt one particular part of the body. Inflammatory fevers and conſumptions have often been occaſioned by ſitting or ſtanding thinly clothed near an open window. Nor is ſleeping with open windows leſs to be dreaded. That ought never to be done, even in the horteſt ſeaſon, unleſs the window is at a diſtance. Mechanics frequently contract fatal diſeaſes, by working ſtript at an open window, and I would adviſe all of them to beware of ſuch a practice.

Few things expoſe people more to catch cold, than keeping their own houſes too warm; ſuch perſons may be ſaid to live in a ſort of hot-houſes; they can hardly ſtir abroad to viſit a neighbour, but at the hazard of their lives. Were there no other reaſon for keeping houſes moderately cool, that alone is ſufficient: But no houſe that is too hot can be wholeſome; heat deſtroys the ſpring and elaſticity of the air, and renders it leſs fit for expanding the lungs, and the other purpoſes of reſpiration. Hence conſumptions and other diſeaſes of the lungs prove ſo fatal to people who work in forges, glaſs-houſes, and the like.

Some are even ſo fool-hardy, as to plunge themſelves when hot in cold water. Not only fevers, but madneſs itſelf, has frequently been the effect of this conduct. Indeed, it looks too like the action of a madman to deſerve a ſerious conſideration.

The reſult of all theſe obſervations is, that every one ought to avoid, with the utmoſt attention, all ſudden tranſitions from heat to cold, and to keep the body in as uniform a temperature as poſſible; or, where that cannot be done, to take care to let it cool gradually.

People may imagine that too ſtrict an attention to theſe things

* The tap-rooms in London and other great towns, where ſuch numbers of people ſpend their evenings, are highly pernicious. The breath of a number of people, crowded into a low apartment, with the addition of fires, candles, the ſmoke of tobacco, and the fumes of hot liquor, &c. muſt not only render it hurtful to continue in ſuch places, but dangerous to go out of them into a cold and chilly atmoſphere.

would tend to render them delicate. So far is this from being my design, that the very first rule proposed for preventing colds, is to harden the body, by enuring it daily to the open air.

I shall put an end to this part of my subject, by giving an abstract of the advice of Celsus, with respect to the preservation of health. "A man," says he, "who is blessed with good health, should "confine himself to no particular rules, either with respect to re- "gimen or medicine. He ought frequently to diversify his man- "ner of living; to be sometimes in town, sometimes in the coun- "try to hunt, sail, indulge himself in rest, but more frequently to "use exercise. He ought to refuse no kind of food that is com- "monly used, but sometimes to eat more and sometimes less; "sometimes to make one at an entertainment, and sometimes to "forbear it; to make rather two meals a-day than one, and al- "ways to eat heartily, provided he can digest it. He ought neither "too eagerly to pursue, nor too scrupulously to avoid, intercourse "with the fair sex: Pleasures of this kind, rarely indulged, ren- "der the body alert and active; but, when too frequently repea- "ted, weak and languid. He should be careful in time of health "not to destroy, by excesses of any kind, that vigour of constitu- "tion which should support him under sickness."

# PART II.

# OF DISEASES.

## CHAPTER XII.

### *Of the Knowledge and Cure of Diſeaſes.*

THE knowledge of diſeaſes does not depend ſo much upon ſcientific principles as many imagine. It is chiefly the reſult of experience and obſervation. By attending the ſick, and carefully obſerving the various occurrences in diſeaſes, a great degree of accuracy may be acquired, both in diſtinguiſhing their ſymptoms, and in the application of medicines. Hence, ſenſible nurſes, and other perſons who wait upon the ſick, often diſcover a diſeaſe ſooner than thoſe who have been bred to phyſic. We do not inſinuate that a medical education is of no uſe: it is doubtleſs of the greateſt importance; but it never can ſupply the place of obſervation and experience.

Every diſeaſe may be conſidered as an aſſemblage of ſymptoms, and muſt be diſtinguiſhed by thoſe which are moſt obvious and permanent. Inſtead, therefore, of giving a claſſical arrangement of diſeaſes, according to the ſyſtematic method, it will be more ſuitable, in a performance of this nature, to give a full and accurate deſcription of each particular diſeaſe as it occurs; and, where any of the ſymptoms of one diſeaſe have a near reſemblance to thoſe of another, to take notice of that circumſtance, and at the ſame time to point out the peculiar or characteriſtic ſymptoms by which it may be diſtinguiſhed. By a due attention to theſe, the inveſtigation of diſeaſes will be found leſs difficult than moſt people would imagine.

A proper attention to the patient's age, ſex, temper of mind, conſtitution, and manner of life, will greatly aſſiſt, both in the inveſtigation and treatment of diſeaſes.

In childhood, the fibres are lax and ſoft, the nerves extremely irritable, and the fluids thin: whereas, in old age, the fibres are rigid, the nerves become almoſt inſenſible, and many of the veſſels imperviable. Theſe, and other peculiarities, render the diſeaſes of the young and aged very different, and of courſe, they muſt require a different method of treatment.

Females are liable to many diſeaſes which do not afflict the other ſex: beſides the nervous ſyſtem being more irritable in them than in men, their diſeaſes require to be treated with greater caution. They are leſs able to bear large evacuations; and all ſtimulating medicines ought to be adminiſtered to them with a ſparing hand.

Particular conſtitutions not only diſpoſe perſons to peculiar diſeaſes, but likewiſe render it neceſſary to treat theſe diſeaſes in a peculiar manner. A delicate perſon, for example, with weak nerves, who lives moſtly within doors, muſt not be treated, under any diſeaſe, preciſely in the ſame manner as one who is hardy and robuſt, and who is much expoſed to the open air.

The temper of mind ought to be carefully attended to. Fear, anxiety, and a fretful temper, both occaſion and aggravate diſeaſes. In vain do we apply medicines to the body to remove maladies which proceed from the mind. When it is affected, the beſt medicine is to ſooth the paſſions, to divert the mind from anxious thought, and to keep the patient as eaſy and cheerful as poſſible.

Attention ought likewiſe to be paid to the climate, or place where the patient lives, the air he breathes, his diet, &c. Such as live in low marſhy ſituations are ſubject to many diſeaſes which are unknown to the inhabitants of high countries. Thoſe who breathe the impure air of cities, have many maladies to which the more happy ruſtics are entire ſtrangers. Perſons who feed groſsly, and indulge in ſtrong liquors, are liable to diſeaſes which do not affect the temperate and abſtemious, &c.

It has already been obſerved, that the different occupations and ſituations in life diſpoſe men to peculiar diſeaſes. It is therefore neceſſary to enquire into the patient's occupation, manner of life, &c. This will not only aſſiſt us in finding out the diſeaſe, but will likewiſe direct us in the treatment of it. It would be very imprudent to treat the laborious and the ſedentary preciſely in the ſame manner, even ſuppoſing them to labour under the ſame diſeaſe.

It will be proper to enquire, whether the diſeaſe be conſtitutional or accidental; whether it has been of long or ſhort duration; whether it proceeds from any great and ſudden alteration in the diet, manner of life, &c. The ſtate of the patient's body, and of the other evacuations, ought alſo to be enquired into; and whether he can with eaſe perform all the vital and animal functions, as breathing, digeſtion, &c.

Laſtly, it will be proper to enquire what diſeaſes the patient has formerly been liable to, and what medicines were moſt beneficial to him; if he has a ſtrong averſion to any particular drug, &c.

As many of the indications of cure may be anſwered by diet alone, it is always the firſt thing to be attended to in the treatment of diſeaſes. Thoſe who know no better, imagine that every thing which goes by the name of a medicine poſſeſſes ſome wonderful power or ſecret charm, and think, if the patient ſwallows enough of drugs, that he muſt do well. This miſtake has many ill conſe-

quences; it makes people truſt to drugs, and neglect their own endeavours; beſides, it diſcourages all attempts to relieve the ſick where medicines cannot be obtained.

Medicines are no doubt uſeful in their place, and, when adminiſtered with prudence, they may do much good; but when they are put in place of every thing elſe, or adminiſtered at random, which is not ſeldom the caſe, they muſt do miſchief. We therefore wiſh to call the attention of mankind from the purſuit of ſecret medicines, to ſuch things as they are acquainted with. The proper regulation of theſe may often do much good, and there is little danger of their ever doing hurt.

Every diſeaſe weakens the digeſtive powers. The diet ought, therefore, in all diſeaſes, to be light and of eaſy digeſtion. It would be as prudent for a perſon with a broken leg to attempt to walk, as for one in a fever to eat the ſame kind of food, and in the ſame quantity, as when he was in perfect health. Even abſtinence alone will often cure a fever, eſpecially when it has been occaſioned by exceſs in eating or drinking.

In all fevers attended with inflammation, as pleuriſies, peripneumonies, &c. thin gruels, wheys, watery infuſions of mucilaginous plants, roots, &c. are not only proper for the patient's food, but they are likewiſe the beſt medicines which can be adminiſtered.

In fevers of a ſlow, nervous, or putrid kind, where there are no ſymptoms of inflammation, and where the patient muſt be ſupported with cordials, that intention can always be more effectually anſwered by nouriſhing diet and generous wines, than by any medicines yet known.

Nor is a proper attention to diet of leſs importance in chronic than in acute diſeaſes. Perſons afflicted with low ſpirits, wind, weak nerves, and other hypochondriacal affections, generally find more benefit from the uſe of ſolid food and generous liquors, than from all the cordial and carminative medicines which can be adminiſtered to them. The ſcurvy will ſooner yield to a proper vegetable diet, than to all the antiſcorbutic remedies of the ſhops.

In conſumptions, when the ſtomach is ſo much weakened as to be unable to digeſt the ſolid fibres of animals, or even to aſſimilate the juices of vegetables, a diet conſiſting chiefly of *milk* will not only ſupport the patient, but will often cure the diſeaſe after every other medicine has failed.

Nor is an attention to other things of leſs importance than to diet. The ſtrange infatuation which has long induced people to ſhut up the ſick from all communication with the external air, has done great miſchief. Not only in fevers but in many other diſeaſes, the patient will receive more benefit from having the freſh air, prudently admitted into his chamber, than from all the medicines which can be given him.

Exerciſe may likewiſe in many caſes be conſidered as a medicine. Sailing, or riding on horſeback, for example, will be of more ſer-

vice in the cure of conſumptions, glandular obſtructions, &c. than any medicine yet known. In diſeaſes which proceed from a relaxed ſtate of the ſolids, the cold bath, and other parts of the gymnaſtic regimen, will be found equally beneficial.

Few things are of greater importance in the cure of diſeaſes than cleanlineſs. When a patient is ſuffered to lie in dirty clothes, whatever perſpires from his body is again reſorbed, or taken up into it, which ſerves to nouriſh the diſeaſe and increaſe the danger. Many diſeaſes may be cured by cleanlineſs alone; moſt of them may be mitigated by it, and in all of them it is highly neceſſary both for the patient and thoſe who attend him.

Many other obſervations, were it neceſſary, might be adduced to prove the importance of a proper regimen in diſeaſes. Regimen will often cure diſeaſes without medicine, but medicine will ſeldom ſucceed where a proper regimen is neglected. For this reaſon, in the treatment of diſeaſes, we have always given the firſt place to regimen. Thoſe who are ignorant of medicine may confine themſelves to it only. For others, who have more knowledge, we have recommended ſome of the moſt ſimple but approved forms of medicine in every diſeaſe. Theſe, however, are never to be adminiſtered but by people of better underſtanding; nor even by them without the greateſt precaution.

## CHAPTER XIII.

### *Of Fevers in General.*

MORE than one half of mankind are ſaid to periſh by fevers. Their moſt general cauſes are *infection, errors in diet, unwholeſome air, violent emotions of the mind, exceſs or ſuppreſſion of uſual evacuations, external or internal injuries, and extreme degrees of heat or cold.* As moſt of theſe have already been treated of at conſiderable length, and their effects ſhown, we ſhall not now reſume the conſideration of them, but only recommend it to all, as they would wiſh to avoid fevers and other fatal diſeaſes, to pay the moſt punctual attention to theſe articles.

Fevers are not only the moſt frequent of all diſeaſes, but they are likewiſe the moſt complex. In the moſt ſimple ſpecies of fever there is always a combination of ſeveral different ſymptoms. The diſtinguiſhing ſymptoms of fevers are, *increaſed heat, frequency of pulſe, loſs of appetite, general debility, pain in the head,* and *a difficulty in performing ſome of the vital or animal functions.* The other ſymptoms, uſually attendant on fevers are, naufea, thirſt, anxiety, delirium, wearineſs, waſting of the fleſh, want of ſleep, or the ſleep diſturbed and not refreſhing.

When the fever comes on gradually, the patient generally com-

plains firſt of langour or liſtleſſneſs, ſoreneſs of the fleſh or the bones, heavineſs of the head, loſs of appetite, ſickneſs, with clammineſs of the mouth; after ſome time come on exceſſive heat, violent thirſt, reſtleſſneſs, &c.

When the fever attacks ſuddenly, it always begins with an uneaſy ſenſation of exceſſive cold, accompanied with debility and loſs of appetite; frequently the cold is attended with ſhivering, oppreſſion about the heart, and ſickneſs at ſtomach, or vomiting.

Fevers are divided into continual, remitting, intermitting, and ſuch as are attended with cutaneous eruption or topical inflammation, as the ſmall-pox, eryſipelas, &c. By a continual fever is meant that which never leaves the patient during the whole courſe of the diſeaſe, or which ſhows no remarkable increaſe or abatement of the ſymptoms. This kind of fever is likewiſe divided into acute, ſlow, and malignant. The fever is called *acute* when its progreſs is quick, and the ſymptoms violent; but when theſe are more gentle, it is generally denominated *ſlow*. When with livid or petechial ſpots, the fever is called *malignant*, *putrid*, or *petechial*.

A remitting fever differs from a continual only in degree. It has frequent increaſes and decreaſes, or exacerbations and remiſſions, but never wholly leaves the patient during the courſe of the diſeaſe. Intermitting fevers or agues are thoſe, which, during the time that the patient may be ſaid to be ill, have evident intervals or remiſſions of the ſymptoms.

As a fever is only an effort of Nature to free herſelf from an offending cauſe, it is the buſineſs of thoſe who have the care of the ſick, to obſerve with diligence which way Nature points, and to endeavour to aſſiſt her operations. Our bodies are ſo framed, as to have a conſtant tendency to expel or throw off whatever is injurious to health. This is generally done by urine, ſweat, ſtool, expectoration, vomit, or ſome other evacuation.

There is reaſon to believe, that if the efforts of Nature, at the beginning of a fever, were duly attended to and promoted, it would ſeldom continue long; but when her attempts are either neglected or counteracted, it is no wonder if the diſeaſe proves fatal. There are daily inſtances of perſons, who after catching cold, have all the ſymptoms of a beginning fever; but by keeping warm, drinking diluting liquors, bathing their feet in warm water, &c. the ſymptoms in a few hours diſappear, and the danger is prevented. When fevers of a putrid kind threaten, the beſt method of obviating their effects is by repeated vomits.

Our deſign is to mark the moſt obvious ſymptoms in fevers, and to point out the proper treatment of the patient with reſpect to his diet, drink, air, &c. in the different ſtages of the diſeaſe. In theſe articles, the inclinations of the patient will, in a great meaſure, direct our conduct.

Almoſt every perſon in a fever complains of great thirſt, and calls out for drink, eſpecially of a cooling nature. This at once

points out the uſe of *water*, and other cooling liquors. What is ſo likely to abate the heat, remove ſpaſms and obſtructions, promote perſpiration, increaſe the quantity of urine, and, in ſhort, produce every ſalutary effect, in an ardent or inflammatory fever, as drinking plentifully of water, thin gruel, or any other weak liquor, of which water is the baſis? The neceſſity of diluting liquors is pointed out by the dry tongue, the parched ſkin, and the burning heat, as well as by the unquenchable thirſt of the patient.

Many cooling liquors, which are extremely grateful to patients in a fever, may be prepared from fruits; as decoctions of tamarinds, apple-tea, orange-whey, and the like. Mucilaginous liquors might alſo be prepared from marſhmallow-roots, linſeed, lime-tree buds, and other mild vegetables. Theſe liquors, eſpecially when acidulated, are highly agreeable to the patient, and ſhould never be denied him.

At the beginning of a fever, the patient generally complains of great laſſitude or wearineſs, and has no inclination to move. This evidently ſhows the propriety of keeping him eaſy, and, if poſſible, in bed. Lying in bed relaxes the ſpaſms, abates the violence of the circulation, and gives Nature an opportunity of exerting all her force to overcome the diſeaſe. The bed alone would often remove a fever at the beginning; but when the patient ſtruggles with the diſeaſe, inſtead of driving it off, he only fixes it the deeper, and renders it more dangerous. This obſervation is too often verified in travellers, who happen, when on a journey, to be ſeized with a fever. Their anxiety to get home induces them to travel with the fever upon them, which conduct ſeldom fails to render it fatal.

In fevers, the mind as well as the body ſhould be kept eaſy. Company is ſeldom agreeable to the ſick. Every thing that diſturbs the imagination increaſes the diſeaſe; for which reaſon, every perſon in a fever ought to be kept perfectly quiet, and neither allowed to ſee nor hear any thing that may in the leaſt affect or diſcompoſe his mind.

Though the patient in a fever has the greateſt inclination for drink, yet he ſeldom has any appetite for ſolid food; hence, the impropriety of urging him to take victuals, is evident. Much ſolid food in a fever is every way hurtful: It oppreſſes Nature, and inſtead of nouriſhing the patient, ſerves only to feed the diſeaſe. What food the patient takes ſhould be in ſmall quantity, light, and of eaſy digeſtion. It ought to be chiefly of the vegetable kind, as panada, roaſted apples, gruels, and ſuch like.

Poor people, when any of their family are taken ill, run directly to their rich neighbours for cordials, and pour wine, ſpirits, &c. into the patient, who, perhaps, never had been accuſtomed to taſte ſuch liquors when in health. If there be any degree of fever, this conduct muſt increaſe it, and if there be none, this is the ready way to raiſe one. Stuffing the patient with ſweet-meats and

other delicacies, is likewiſe very pernicious. Theſe are always harder to digeſt than common food, and hurt the ſtomach.

Nothing is more deſired by a patient in a fever, than freſh air. It not only removes his anxiety, but cools the blood, revives the ſpirits, and proves every way beneficial. Many patients are in a manner ſtifled to death in fevers for want of freſh air; yet ſuch is the unaccountable infatuation of moſt people, that the moment they think a perſon in a fever, they imagine he ſhould be kept in a cloſe chamber, into which not one particle of freſh air muſt be admitted. Inſtead of this, there ought to be a conſtant ſtream of freſh air into a ſick perſon's chamber, ſo as to keep it moderately cool. Indeed, its degree of warmth ought never to be greater than is agreeable to one in perfect health.

Nothing ſpoils the air of a ſick perſon's chamber, or hurts the patient more, than a number of people breathing in it. When the blood is inflamed, air that has been breathed repeatedly will greatly increaſe the diſeaſe. Such air not only loſes its ſpring, and becomes unfit for the purpoſe of reſpiration, but acquires a noxious quality, which renders it in a manner poiſonous to the ſick.

In fevers, when the patient's ſpirits are low and depreſſed, he is not only to be ſupported with cordials, but every method ſhould be taken to cheer and comfort his mind. Many, from a miſtaken zeal, when they think a perſon in danger, inſtead of ſolacing his mind with the hopes and conſolations of religion, fright him with the views of hell and damnation. It would be unſuitable here to dwell upon the impropriety and dangerous conſequences of this conduct.

Among common people, the very name of a fever generally ſuggeſts the neceſſity of bleeding. This notion ſeems to have taken its riſe from moſt fevers in this country having been formerly of an inflammatory nature; but true inflammatory fevers are now ſeldom to be met with. Sedentary occupations, and a different manner of living, have ſo changed the ſtate of diſeaſes in Britain, that there is now hardly one fever in ten where the lancet is neceſſary. In low, nervous fevers, which are now ſo common, bleeding is really hurtful, as it weakens the patient, ſinks his ſpirits, &c. We would recommend this general rule, never to bleed at the beginning of a fever, unleſs there be evident ſigns of inflammation. Bleeding is an excellent medicine when neceſſary, but ſhould never be wantonly performed.

It is likewiſe a common notion, that ſweating is always neceſſary in the beginning of a fever. When the fever proceeds from an obſtructed perſpiration, this notion is not ill-founded. If the patient only lies in bed, bathes his feet and legs in warm water, and drinks freely of water-gruel, or any other weak diluting liquor, he will ſeldom fail to perſpire freely. The warmth of the bed, and the diluting drink, will relax the univerſal ſpaſm, which generally affects the ſkin at the beginning of a fever; it will open the pores,

and promote the perſpiration, by means of which the fever may often be carried off. But inſtead of this, the common practice is to heap clothes upon the patient, and to give him things of a hot nature, as ſpirits, ſpiceries, &c. which increaſe the ſpaſms, and render the diſeaſe more dangerous.

In all fevers, a proper attention ſhould be paid to the patient's longings. Theſe are the calls of Nature, and often point out what may be of real uſe. Patients are not indeed to be indulged in every thing that the ſickly appetite may crave; but it is generally right to let them have a little of what they eagerly deſire, though it may not ſeem altogether proper. What the patient longs for, his ſtomach will generally digeſt; and ſuch things have ſometimes a very happy effect.

When a patient is recovering from a fever, great care is neceſſary to prevent a relapſe. Many perſons, by too ſoon imagining themſelves well, have loſt their lives, or contracted other diſeaſes of an obſtinate nature. As the body after a fever is weak and delicate, it is neceſſary to guard againſt catching cold. Moderate exerciſe in the open air will be of uſe, but great fatigue is by all means to be avoided; agreeable company will alſo have a good effect. The diet muſt be light, but nouriſhing. It ſhould be taken frequently, but in ſmall quantities. It is dangerous at ſuch a time to eat as much as the ſtomach may crave.

## CHAPTER XIV.

### *Of Intermitting Fevers, or Agues.*

INTERMITTING fevers afford the beſt opportunity both of obſerving the nature of a fever, and alſo the effects of medicine. No perſon can be at a loſs to diſtinguiſh an intermitting fever from any other, and the proper medicine for it is now almoſt univerſally known.

The ſeveral kinds of intermitting fevers take their names from the period in which the fit returns, as quotidian, tertian, quartan, &c.

CAUSES.——Agues are occaſioned by effluvia from putrid ſtagnating water. This is evident from their abounding in rainy ſeaſons, and being moſt frequent in countries where the ſoil is marſhy. This diſeaſe may alſo be occaſioned by eating too much ſtone fruit, by a poor watery diet, damp houſes, evening dews, lying upon the damp ground, watching, fatigue, depreſſing paſſions, and the like. When the inhabitants of a high country remove to a low one, they are generally ſeized with intermitting fevers, and to ſuch the diſeaſe is moſt apt to prove fatal. In a word, whatever relaxes the ſolids, diminiſhes the perſpiration, or obſtructs the

circulation in the capillary or ſmall veſſels, diſpoſes the body to agues.

SYMPTOMS.——An intermitting fever generally begins with a pain of the head and loins, wearineſs of the limbs, coldneſs of the extremities, ſtretching, yawning, with ſometimes great ſickneſs and vomiting; to which ſucceed ſhivering and violent ſhaking. Afterwards the ſkin becomes moiſt, and a profuſe ſweat breaks out which generally terminates the fit or paroxyſm. Sometimes the diſeaſe comes on ſuddenly, when the perſon thinks himſelf in perfect health; but it is more commonly preceded by liſtleſſneſs, loſs of appetite, and the ſymptoms mentioned above.

REGIMEN.——While the fit continues, the patient ought to drink freely of water-gruel, orange-whey, weak camomile tea; or, if his ſpirits be low, ſmall wine-whey, ſharpened with the juice of lemon. All his drink ſhould be warm, as that will aſſiſt in bringing on the ſweat, and conſequently ſhorten the paroxyſm*.

Between the paroxyſms the patient muſt be ſupported with food that is nouriſhing, but light and eaſy of digeſtion, as veal or chicken broths, ſago, gruel with a little wine, light puddings, and ſuchlike. His drink may be ſmall negus, acidulated with the juice of lemons or oranges, and ſometimes a little weak punch. He may likewiſe drink infuſions of bitter herbs, as camomile, wormwood, or water-trefoil, and may now-and-then take a glaſs of ſmall wine, in which gentian root, centaury, or ſome other bitter, has been infuſed.

As the chief intentions of cure in an ague are to brace the ſolids, and promote perſpiration, the patient ought to take as much exerciſe between the fits as he can bear. If he is able to go abroad, riding on horſeback, or in a carriage, will be of great ſervice. But if he cannot bear that kind of exerciſe, he ought to take ſuch as his ſtrength will permit. Nothing tends more to prolong an intermitting fever, than indulging a lazy, indolent diſpoſition.

Intermitting fevers, under a proper regimen, will often go off without medicine; and when the diſeaſe is mild, in an open dry country, there is ſeldom any danger from allowing it to take its courſe; but when the patient's ſtrength ſeems to decline, or the paroxyſms are ſo violent that his life is in danger, medicine ought immediately to be adminiſtered. This, however, ſhould never be done till the diſeaſe be properly formed, that is to ſay, till the patient has had ſeveral fits of ſhaking and ſweating.

MEDICINE.——The firſt thing to be done in the cure of an intermitting fever, is to cleanſe the ſtomach and bowels. This renders the application of other medicines more ſafe and efficacious.

* Dr. Lind ſays, that twenty or twenty-five drops of laudanum put into a cup of the patient's drink, and given about half an hour after the commencement of the hot fit, promotes the ſweat, ſhortens the fit, relieves the head, and tends greatly to remove the diſeaſe.

In this diſeaſe, the ſtomach is generally loaded with cold viſcid phlegm, and frequently great quantities of bile are diſcharged by vomit; which points out the neceſſity of ſuch evacuations. Vomits are therefore to be adminiſtered before the patient takes any other medicine. A doſe of ipecacuanha will generally anſwer this purpoſe very well. A ſcruple or half a dram of the powder will be ſufficient from an adult, and for a younger perſon the doſe muſt be leſs in proportion. After the vomit begins to operate, the patient ought to drink plentifully of weak camomile-tea. The vomit ſhould be taken two or three hours before the return of the fit, and may be repeated at the diſtance of two or three days. Vomits not only cleanſe the ſtomach, but increaſe the perſpiration and all the other ſecretions, which render them of ſuch importance, that they often cure intermitting fevers without the aſſiſtance of any other medicine.

Purging medicines are uſeful and often neceſſary in intermitting fevers. A ſmart purge has cured an obſtinate ague, after the bark and other medicines had been uſed in vain. Vomits are more ſuitable in this diſeaſe, and render purging leſs neceſſary; but if the patient be afraid to take a vomit, he ought to cleanſe the bowels by a doſe or two of Glauber's ſalt or jalap.

Bleeding may ſometimes be proper at the beginning of an intermitting fever, when exceſſive heat, a delirium, &c. give reaſon to ſuſpect an inflammation; but as the blood is ſeldom in an inflammatory ſtate in intermitting fevers, this operation is rarely neceſſary. When frequently repeated, it tends to prolong the diſeaſe.

After proper evacuations, the patient may ſafely uſe the Peruvian bark, which may be taken in any way that is moſt agreeable to him. No preparation of the bark ſeems to anſwer better than the moſt ſimple form in which it can be given, viz. in powder.

Two ounces of the beſt bark, finely powdered, may be divided into twenty-four doſes. Theſe may either be made into boluſſes as they are uſed, with a little ſyrup of lemon, or mixed in a glaſs of red wine, a cup of camomile-tea, water-gruel, or any other drink that is more agreeable to the patient*.

In an ague which returns every day, one of the above doſes may be taken every two hours, or oftener during the interval of the fits. By this method, the patient will be able to take five or ſix doſes between each paroxyſm. In a tertian or third-day ague, it will be ſufficient to take a doſe every third hour during the interval, and in a quartan every fourth. If the patient cannot take ſo large a doſe of the bark, he may divide each of the powders into two parts, and take one every hour, &c. For a young perſon, a ſmaller

* It has lately been obſerved, that the red bark is more powerful than that which has for ſome time been in common uſe. Its ſuperior efficacy ſeems to ariſe from its being of a more perfect growth than the quill bark, and conſequently more fully impregnated with the medical properties of the plant.

quantity of this medicine will be ſufficient, and the doſe muſt be adapted to the age, conſtitution, and violence of the ſymptoms*.

The above quantity of bark will frequently cure an ague; the patient, however, ought not to leave off taking the medicine as ſoon as the paroxyſms are ſtopped, but ſhould continue to uſe it till there is reaſon to believe the diſeaſe entirely overcome. Moſt failures in the cure are owing to patients not continuing to uſe the medicine long enough. They are generally directed to take it till the fits are ſtopped, then to leave it off, and begin again at ſome diſtance of time; by which means the diſeaſe gathers ſtrength, and often returns with as much violence as before. A relapſe may be prevented by the patient's continuing to take ſmall doſes of the medicine for ſome time after the ſymptoms diſappear. This is the moſt ſafe method of cure.

An ounce of gentian root, calamus aromaticus, and orange-peel, of each half an ounce, with three or four handfuls of camomile-flowers, and an handful of coriander-ſeed, all bruiſed together in a mortar, may be uſed in form or infuſion of tea. About half an handful of theſe ingredients may be put into a tea-pot, and an Engliſh pint of boiling water poured on them. A cup of this infuſion, drank three or four times a day, will greatly promote the cure. Such patients as cannot drink the watery infuſion, may put two handfuls of the ſame ingredients into a bottle of white wine, and take a glaſs of it twice or thrice a day. If patients drink freely of the above, or any other proper infuſion of bitters, a ſmaller quantity of bark than is generally uſed, will be ſufficient to cure an ague†.

Thoſe who cannot ſwallow the bark in ſubſtance, may take it in decoction or infuſion. An ounce of bark in powder may be infuſed in a bottle of white wine for four or five days, frequently ſhaking the bottle, afterwards let the powder ſubſide, and pour off the clear liquor. A wine-glaſsful may be drank three or four

* In intermitting fevers of an obſtinate nature, I have found it neceſſary to throw in the bark much faſter. The benefits ariſing from this medicine, depend chiefly upon a large quantity of it being adminiſtered in a ſhort time. Several ounces of bark given in a few days will do more than as many pounds taken in the courſe of ſome weeks. When this medicine is intended either to ſtop a mortification, or cure an obſtinate ague, it ought to be thrown in as faſt as the ſtomach can poſſibly bear it. Inattention to this circumſtance has hurt the reputation of one of the beſt medicines of which we are in poſſeſſion.

† There is reaſon to believe, that ſundry of our own plants or barks, which are very bitter and aſtringent, would ſucceed in the cure of intermitting fevers, eſpecially when aſſiſted by aromatics. But as Peruvian bark has been long approved in the cure of this diſeaſe, and is now to be obtained at a very reaſonable rate, it is of leſs importance to ſearch after new medicines. We cannot however omit taking notice, that Peruvian bark is very often adulterated, and that it requires conſiderable ſkill to diſtinguiſh between the genuine and the falſe. This ought to make people very cautious of whom they purchaſe it.

times a day, or oftener, as there is occaſion. If a decoction be more agreeable, an ounce of the bark, and two drams of ſnake-root bruiſed, with an equal quantity of ſalt of wormwood, may be boiled in a quart of water, into an Engliſh pint. To the ſtrained liquor may be added an equal quantity of red wine, and a glaſs of it taken frequently.

In obſtinate agues, the bark will be found much more efficacious when aſſiſted by brandy, or other warm cordials, than taken alone. This I have had frequently occaſion to obſerve in a country where intermitting fevers were endemical. The bark ſeldom ſucceeds unleſs aſſiſted by ſnake-root, ginger, canella alba, or ſome other warm aromatic. When the fits are very frequent and violent, in which caſe the fever often approaches towards an inflammatory nature, it will be ſafer to keep out the aromatics, and to add ſalt of tartar in their ſtead. But in an obſtinate tertian or quartan, in the end of autumn or beginning of winter, warm and cordial medicines are abſolutely neceſſary*.

As autumnal and winter agues generally prove much more obſtinate than thoſe which attack the patient in ſpring or ſummer, it will be neceſſary to continue the uſe of medicines longer in the former than in the latter. A perſon who is ſeized with an intermitting fever in the beginning of winter, ought frequently, if the ſeaſon proves rainy, to take a little medicine, although the diſeaſe may ſeem to be cured, to prevent a relapſe, till the return of the warm ſeaſon. He ought likewiſe to take care not to be much abroad in wet weather, eſpecially in cold eaſterly winds.

When agues are not properly cured, they often degenerate into obſtinate chronical diſeaſes, as the dropſy, jaundice, &c. For this reaſon, all poſſible care ſhould be taken to have them radically cured, before the conſtitution has been too much weakened.

Though nothing is more rational than the method of treating intermitting fevers, yet, by ſome ſtrange infatuation, more charms and whimſical remedies are daily uſed for removing this than any other diſeaſe. There is hardly an old woman who is not in poſſeſſion of a noſtrum for ſtopping an ague: and it is amazing with what readineſs their pretenſions are believed. Thoſe in diſtreſs eagerly graſp at any thing that promiſes ſudden relief; but the ſhorteſt way is not always the beſt in the treatment of diſeaſes. The only method to obtain a ſafe and laſting cure, is gradually to aſſiſt Nature in removing the cauſe of the diſorder.

Some, indeed, try bold, or, rather, fool-hardy experiments to

* In obſtinate agues, when the patient is old, the habit phlegmatic, the ſeaſon rainy, the ſituation damp, or the like, it will be neceſſary to mix with two ounces of the bark, half an ounce of Virginian ſnake-root, and a quarter of an ounce of ginger, or ſome other warm aromatic; but when the ſymptoms are of an inflammatory nature, half an ounce of ſalt of wormwood, or ſalt of tartar, may be added to the above quantity of bark.

cure agues, as drinking great quantities of ſtrong liquors, jumping into a river, &c*. Theſe may ſometimes have the deſired effect, but muſt always be attended with danger. When there is any degree of inflammation, or the leaſt tendency to it, ſuch experiments may prove fatal. The only patient whom I remember to have loſt, in an intermitting fever, evidently killed himſelf by drinking ſtrong liquor, which ſome perſon had perſuaded him would prove an infallible remedy.

Many dirty things are extolled for the cure of intermitting fevers, as ſpiders, cobwebs, ſnuffings of candles, &c. Though theſe may ſometimes ſucceed, yet their very naſtineſs is ſufficient to ſet them aſide, eſpecially when cleanly medicines will anſwer the purpoſe better. The only medicine that can be depended upon, for thoroughly curing an intermitting fever, is the Peruvian bark. It may always be uſed with ſafety; and I can honeſtly declare, that in all my practice, I never knew it fail, when combined with the medicines mentioned above, and duly perſiſted in.

Where agues are endemical, even children are often afflicted with that diſeaſe. Such patients are very difficult to cure, as they can ſeldom be prevailed upon to take the bark, or any other diſagreeable medicine†. One method of rendering this medicine more palatable, is to make it into a mixture with diſtilled waters and ſyrup, and afterwards to give it an agreeable ſharpneſs with the elixir or ſpirit of vitriol. This both improves the medicine, and takes off the nauſeous taſte. In caſes where the bark cannot be adminiſtered, the ſaline mixture may be given with advantage to children‡.

Wine-whey is a very proper drink for a child in an ague; to half an Engliſh pint of which, may be put a tea-ſpoonful of the ſpirit of hartſhorn. Exerciſe is likewiſe of conſiderable ſervice; and when the diſeaſe proves obſtinate, the child ought, if poſſible, to be removed to a warm, dry air. The food ought to be nouriſhing, and ſometimes a little generous wine ſhould be allowed.

To children, and ſuch as cannot ſwallow the bark, or when the ſtomach will not bear it, it may be given by clyſter. Half an ounce of the extract of bark, diſſolved in four ounces of warm-water, with the addition of half an ounce of ſweet-oil, and ſix or eight drops of laudanum, is the form recommended by Dr. Lind for an adult, and this to be repeated every fourth hour, or oftener, as the occaſion ſhall require. For children, the quantity of extract and

* Arſnic is among the number of theſe bold, injudicious remedies; and ought never to be uſed in any caſe of intermitting fever whatever. (I. C.)

† When children cannot take the medicine recommended, they may be frequently cured by giving ten or fifteen drops of laudanum, according to the age of the patient, about half an hour before the cold ſtage commences. (I. C.)

‡ See Appendix, Saline mixture.

laudanum muſt be proportionally leſſened. Children have been cured of agues by making them wear a waiſtcoat with powdered bark quilted between the folds of it; by bathing them frequently in a ſtrong decoction of the bark, and by rubbing the ſpine with ſtrong ſpirits, or with a mixture of equal parts of laudanum, and the ſaponaceous liniment.

This diſeaſe is very common, and few patients in an ague apply to phyſicians unleſs in extremities. There are many caſes in which the diſeaſe is very irregular, being complicated with other diſeaſes, or attended with ſymptoms which are both very dangerous and very difficult to underſtand. All theſe we have purpoſely paſſed over, as they would only bewilder the generality of readers. When the diſeaſe is very irregular, or the ſymptoms dangerous, the patient ought immediately to apply to a phyſician, and ſtrictly to follow his advice.

To prevent agues, people muſt endeavour to avoid their cauſes. Theſe have been already pointed out in the beginning of this ſection; we ſhall therefore only add one preventive medicine, which may be of uſe to ſuch as are obliged to live in low marſhy countries, or who are liable to frequent attacks of this diſeaſe.

Take an ounce of the beſt Peruvian bark; Virginia ſnake-root, and orange-peel, of each half an ounce; bruiſe them all together, and infuſe for five or ſix days in a bottle of brandy, Holland-gin, or any good ſpirit; afterwards pour off the clear liquor, and take a wine glaſs of it twice or thrice a-day. This is recommending a dram; but the bitter ingredients in a great meaſure take off the ill effects of the ſpirit. Thoſe who do not chooſe it in brandy, may infuſe it in wine; and ſuch as can bring themſelves to chew the bark, will find that method ſucceed very well. Gentian root, or calamus aromaticus may alſo be chewed by turns for the ſame purpoſe. All bitters ſeem to be antidotes to agues eſpecially thoſe that are warm and aſtringent.

## CHAPTER XV.

### *Of an Acute Continual Fever.*

THIS fever is termed acute, ardent, or inflammatory. It moſt commonly attacks the young, or perſons about the prime or vigour of life, eſpecially ſuch as live high, abound with blood, and whoſe fibres are ſtrong and elaſtic. It ſeizes people at all ſeaſons of the year; but is moſt frequent in the ſpring and beginning of ſummer.

CAUSES.——An ardent fever may be occaſioned by any thing that overheats the body, or produces plethora, as violent exerciſe, ſleeping in the ſun, drinking ſtrong liquors, eating ſpiceries, a full diet, with little exerciſe, &c. It may likewiſe be occaſioned by

whatever obſtructs the perſpiration, as lying on the damp ground, drinking cold liquor when the body is hot, night watching, or the like.

SYMPTOMS.——A rigour or chillneſs generally uſhers in this fever, which is ſoon ſucceeded by great heat, a frequent and full pulſe, pain of the head, dry ſkin, redneſs of the eyes, a florid countenance, pains in the back, loins, &c. To theſe ſucceed difficulty of breathing, ſickneſs, with an inclination to vomit. The patient complains of great thirſt, has no appetite for ſolid food, is reſtleſs, and his tongue generally appears black and rough.

A delirium, exceſſive reſtleſſneſs, great oppreſſion of the breaſt, with laborious reſpiration, ſtarting of the tendons, hickough, cold clammy ſweats, and an involuntary diſcharge of urine, are very dangerous ſymptoms.

As this diſeaſe is always attended with danger, the beſt medical aſſiſtance ought to be procured as ſoon as poſſible. A phyſician may be of uſe at the beginning, but his ſkill is often of no avail afterwards. Nothing can be more unaccountable than the conduct of thoſe who have it in their power, at the beginning of a fever, to procure the beſt medical aſſiſtance, yet put it off till things come to an extremity. When the diſeaſe, by delay or wrong treatment, has become incurable, and has exhauſted the ſtrength of the patient, it is in vain to hope for relief from medicine. Phyſicians may indeed aſſiſt Nature; but their attempts muſt ever prove fruitleſs, when ſhe is no longer able to co-operate with their endeavours.

REGIMEN.——From the ſymptoms of this diſeaſe, it is evident, that the blood and other humours require to be diluted; that the perſpiration, urine, ſaliva, and all the other ſecretions, are in too ſmall quantity; that the veſſels are rigid, and the heat of the whole body too great: all theſe clearly point out the neceſſity of a regimen calculated to dilute the blood, allay the exceſſive heat, remove the ſpaſmodic ſtricture of the veſſels, and promote the ſecretions.

Theſe important purpoſes may be greatly promoted by drinking plentifully of diluting liquors; as water-gruel, or oatmeal-tea, clear whey, barley-water, balm-tea, apple-tea, &c. Theſe may be ſharpened with juice of orange, jelly of currants, raſpberries, and ſuch-like: orange-whey is likewiſe an excellent cooling drink. It is made by boiling among milk and water a bitter orange ſliced, till the curd ſeparates. If no orange can be had, a lemon, a little cream of tartar, or a few ſpoonfuls of vinegar, will have the ſame effect. Two or three ſpoonfuls of white wine may be occaſionally added to the liquor when boiling.

If the patient be coſtive, an ounce of tamarinds, with two ounces of ſtoned raiſins of the ſun, and a couple of figs, may be boiled in three Engliſh pints of water to a quart. This makes a very pleaſant drink, and may be uſed at diſcretion. The common pectoral

decoction is likewiſe a very proper drink in this diſeaſe. A tea-cupful of it may be taken every two hours, or oftener, if the patient's heat and thirſt be very great*.

The above liquids muſt all be drank a little warm. They may be uſed in ſmaller quantities at the beginning of a fever, but more freely afterwards, in order to aſſiſt in carrying off the diſeaſe, by promoting the different excretions. We have mentioned a variety of drinks, that the patient may have it in his power to chooſe thoſe which are moſt agreeable; and that, when tired of one, he may have recourſe to another.

The patient's diet muſt be very ſpare and light. All ſorts of fleſh-meats, and even chicken-broths, are to be avoided. He may be allowed groat-gruel, panado, or light-bread boiled in water; to which may be added a few grains of common ſalt, and a little ſugar, which will render it more palatable. He may eat roaſted apples with a little ſugar, toaſted bread with jelly of currants, boiled prunes, &c.

It will greatly relieve the patient, eſpecially in an hot ſeaſon, to have freſh air frequently let into his chamber. This muſt always be done in ſuch a manner as not to endanger his catching cold.

It is too common in fevers to load the patient with bed-clothes, under the pretence of making him ſweat, or defending him from the cold. This cuſtom has many ill effects. It increaſes the heat of the body, fatigues the patient, and retards, inſtead of promoting, the perſpiration.

Sitting up-right in bed, if the patient is able to bear it, will often have a good effect. It relieves the head, by retarding the motion of the blood to the brain. But this poſture ought never to be continued too long: and if the patient is inclined to ſweat, it will be more ſafe to let him lie, only raiſing his head a little with pillows.

Sprinkling the chamber with vinegar, juice of lemon, or vinegar and roſe-water, with a little nitre diſſolved in it, will greatly refreſh the patient. This ought to be done frequently, eſpecially if the weather is hot.

The patient's mouth ſhould be often waſhed with a mixture of water and honey, to which a little vinegar may be added; or with a decoction of figs in barley-water. His feet and hands ought frequently to be bathed in lukewarm water; eſpecially if the head is affected.

The patient ſhould be kept as quiet and eaſy as poſſible. Company, noiſe, and every thing that diſturbs the mind, is hurtful. Even too much light, or any thing that affects the ſenſes, ought to be avoided. His attendants ſhould be as few as poſſible, and they ought not to be too often changed. His inclinations ſhould rather

* See Appendix, Pectoral Decoction.

be ſoothed than contradicted; even the promiſe of what he craves will often ſatisfy him as much as its reality.

MEDICINE.——In all this and other fevers, attended with a hard, full, quick pulſe, bleeding is of the greateſt importance. This operation ought always to be performed as ſoon as the ſymptoms of an inflammatory fever appear. The quantity of blood to be taken away, however, muſt be in proportion to the ſtrength of the patient and the violence of the diſeaſe. If, after the firſt bleeding, the fever ſhould riſe, and the pulſe become more frequent and hard, there will be a neceſſity for repeating it a ſecond, and perhaps a third, or even a fourth time, which may be done at the diſtance of twelve, eighteen, or twenty-four hours from each other, as the ſymptoms require*. If the heat and fever be very great, forty or fifty drops of the dulciſied or ſweet ſpirit of nitre may be made into a draught, with an ounce of roſe-water, two ounces of common water, and half an ounce of ſimple ſyrup, or a bit of loaf-ſugar. This draught may be given to the patient every three or four hours while the fever is violent; afterwards once in five or ſix hours will be ſufficient.

If the patient be afflicted with reaching, or an inclination to vomit, it will be right to aſſiſt Nature's attempts, by giving him weak camomile-tea, or lukewarm water to drink.

If the body be bound, a clyſter of milk and water, with a little ſalt, and a ſpoonful of ſweet-oil or freſh butter in it, ought daily to be adminiſtered. Should this not have the deſired effect, a teaſpoonful of magneſia alba, or cream of tartar, may be frequently put into his drink. He may likewiſe eat tamarinds, boiled prunes, roaſted apples, and the like.

If about the tenth, eleventh, or twelfth day, the pulſe becomes more ſoft, the tongue moiſter, and the urine begins to let fall a reddiſh ſettlement, there is reaſon to expect a favourable iſſue to the diſeaſe. But if, inſtead of theſe ſymptoms, the patient's ſpirits grow languid, his pulſe ſinks, and his breathing becomes difficult, with a ſtupor, trembling of the nerves, ſtarting of the tendons, &c. there is reaſon to fear that the conſequences will be fatal. In this caſe, bliſters muſt be applied to the head, ancles, inſide of the legs or thighs, as there may be occaſion; poultices of wheat-bred, muſtard, and vinegar, may likewiſe be applied to the ſoles of the feet, and the patient muſt be ſupported with cordials, as ſtrong wine-whey, negus, ſago-gruel with wine in it, and ſuch like.

A proper regimen is not only neceſſary during the fever, but likewiſe after the patient begins to recover. By neglecting this, many relapſe, or fall into other diſeaſes, and continue valetudinary for life. Though the body is weak after a fever, yet the diet for ſome time ought to be rather cleanſing than of too nouriſhing a

* During the time bleedings are employed, briſk purging with glauber ſalts ſhould not be omitted. (I. C.)

nature. Too much food, drink, exercise, company, &c. are carefully to be avoided. The mind ought to be kept easy, and the patient should not pursue study, or any business that requires intense thinking.

If the digestion is bad, or the patient seized at times with feverish heats, an infusion of bark in cold water will be of use. It will strengthen the stomach, and help to subdue the remains of the fever.

When the patient's strength is pretty well recovered, he ought to take some gentle laxative. An ounce of tamarinds and a dram of sena may be boiled for a few minutes in an English pint of water, and an ounce of manna dissolved in the decoction; afterwards it may be strained, and a tea-cupful drank every hour till it operates. This dose may be repeated twice or thrice, five or six days intervening betwixt each dose.

Those who follow laborious employments ought not to return too soon to their labour after a fever, but should keep easy till their strength and spirits are sufficiently recruited.

## CHAPTER XVI.

### *Of the Pleurisy.*

THE the pleurisy is an inflammation of that membrance called the *pleura*, which lines the inside of the breast. It is distinguished into the moist and dry. In the former, the patient spits freely; in the latter, little, or none at all. There is likewise a species of this disease, which is called the *spurious* or *bastard pleurisy*, in which the pain is more external, and chiefly affects the muscles between the ribs. The pleurisy prevails among labouring people, especially such as work without doors, and are of a sanguine constitution. It is most frequent in the spring season.

CAUSES.——The pleurisy may be occasioned by whatever obstructs the perspiration; as cold northerly winds; drinking cold liquors when the body is hot; sleeping without-doors on the damp ground; wet clothes; plunging the body into cold water, or exposing it to the cold air, when covered with sweat, &c. It may be occasioned by drinking strong liquors; by the stoppage of usual evacuations; as old ulcers, issues, sweating of the feet or hands, &c. the sudden striking in of any eruption, as the itch, the measles, or the small-pox. Those who have been accustomed to bleed at a certain season of the year, are apt, if they neglect it, to be seized with a pleurisy. Keeping the body too warm by means of fire, clothes, &c. renders it more liable to this disease. A pleurisy may likewise be occasioned by violent exercise, as running, wrestling, leaping, or by supporting great weight, blows on the breast,

&c. A bad conformation of the body renders perſons more liable to this diſeaſe, ſuch as a narrow cheſt, &c.

SYMPTOMS.——This, like moſt other fevers, generally begins with chilline's and ſhivering, which are followed by heat, thirſt, and reſtleſſneſs. To theſe ſucceeds a violent pricking pain in one of the ſides among the ribs*. Sometimes the pain extends towards the back-bone, ſometimes towards the forepart of the breaſt, and at other times towards the ſhoulder blades. The pain is generally moſt violent when the patient draws in his breath.

The pulſe in this diſeaſe is commonly quick and hard, the urine high-coloured; and if blood be let, it is covered with a tough cruſt, or buffy coat. The patient's ſpittle is at firſt thin, but afterwards it becomes groſſer, and is often ſtreaked with blood.

REGIMEN.——Nature generally endeavours to carry off this diſeaſe by a critical diſcharge of blood from ſome part of the body, by expectoration, ſweat, looſe ſtools, thick urine, or the like. We ought therefore to ſecond her intentions by leſſening the force of the circulation; relaxing the veſſels, diluting the humours, and promoting expectoration.

For theſe purpoſes, the diet, as in the former diſeaſe, ought to be cool, ſlender and diluting. The patient muſt avoid all food that is viſcid, hard of digeſtion, or that affords much nouriſhment; as fleſh, butter, cheeſe, eggs, milk, and every thing that is of a heating nature. His drink may be whey, or an infuſion of pectoral and balſamic vegetables†.

Barley-water, with a little honey or jelly of currants mixed with it, is a very proper drink in this diſeaſe. It is made by boiling an ounce of pearl-barley in three Engliſh pints of water to two, which muſt afterwards be ſtrained. The decoction of figs, raiſins, barley, recommended in the preceding diſeaſe, is here very proper. Theſe and other diluting liquors are not to be drank in large quantities at a time, but the patient ought to keep continually ſipping them, ſo as to render his mouth and throat always moiſt. All his food and drink ſhouldbe taken a little warm.

The patient ſhould be kept quiet, cool, and every way eaſy, as directed under the foregoing diſeaſe. His feet and hands ought daily to be bathed in lukewarm water; and he may ſometimes ſit up in bed for a ſhort ſpace to relieve his head.

MEDICINE.——Almoſt every perſon knows, when a fever is attended with a violent pain of the ſide, and a quick hard pulſe, that bleeding is neceſſary. When theſe ſymptoms come on, the ſooner this operation is performed the better; and the quantity at firſt muſt be pretty large if the patient is able to bear it. A large quantity of blood let at once, in the beginning of a pleuriſy, has a much better effect than repeated ſmall bleedings. A man may

* In ſome caſes of pleuriſy, the pricking pain in the ſide precedes the chilline's and ſhivering. (I. C.)

† See Appendix, Pectoral infuſion.

loſe twelve or fourteen ounces of blood as ſoon as it is certainly known that he is ſeized with a pleuriſy. For a younger perſon, or one of a delicate conſtitution, the quantity muſt be leſs.

If, after the firſt bleeding, the ſtitch, with the other violent ſymptoms, ſhould ſtill continue, it will be neceſſary, at the diſtance of twelve or eighteen hours, to let eight or nine ounces more. If the ſymptoms do not then abate, and the blood ſhows a ſtrong buffy coat, a third, or even a fourth bleeding may be requiſite. If the pain of the ſide abates, the pulſe becomes ſofter, or the patient begins to ſpit freely, bleeding ought not to be repeated. This operation is ſeldom neceſſary after the third or fourth day of the fever, and ought not then to be performed, unleſs in the moſt urgent circumſtances.

Topical bleeding has often a very good effect in this diſeaſe. It may be performed by applying a number of leeches to the part affected, or by cupping, which is a more certain and expeditious method.

If the ſtitch continues after repeated bleedings, a bliſter muſt be applied over the part affected. This not only procures a diſcharge from the ſide, but takes off the ſpaſm, and by that means aſſiſts in removing the cauſe of the diſeaſe. To prevent a ſtrangury when the bliſter is on, the patient may drink freely of the Arabic emulſion * or flax-ſeed tea.

If the patient is coſtive, a clyſter of thin water-gruel, or of barley-water, in which a handful of mallows, or any other emollient vegetable has been boiled, may be daily adminiſtered. This will not only empty the bowels, but have the effect of a warm fomentation applied to the inferior viſcera, which will help to make a derivation from the breaſt.

The expectoration or ſpitting may be promoted by ſharp, oily, and mucilaginous medicines. For this purpoſe, an ounce of the oxymel, or the vinegar of ſquills, may be added to ſix ounces of the pectoral decoction, and two table-ſpoonfuls of it taken every two hours.

Should the ſquill diſagree with the ſtomach, the oily emulſion may be adminiſtered†; or, in place of it, two ounces of the oil of ſweet-almonds, or oil of olives, and two ounces of the ſyrup of violets may be mixed with as much ſugar-candy powdered, as will make an electuary of the conſiſtence of honey. The patient may take a tea-ſpoonful of this frequently, when the cough is troubleſome. Should oily medicines prove naufeous, which is ſometimes the caſe, two table-ſpoonfuls of the ſolution of gum-ammoniac in barley-water may be given three or four times a-day§.

If the patient does not perſpire, but has a burning heat upon his ſkin, and paſſes very little water, ſome ſmall doſes of purified

* See Appendix, Arabic Emulſion.
† See Appendix, Oily Emulſion.
§ See Appendix, Solution of Gum-Ammoniac.

nitre and camphire will be of uſe. Two drams of the former may be rubbed with five or ſix grains of the latter in a mortar, and the whole divided into ſix doſes, one of which may be taken every five or ſix hours, in a little of the patient's ordinary drink.

There is one medicine which ſome reckon almoſt a ſpecific in the pleuriſy, viz. the decoction of the Seneka rattle-ſnake root*. After bleeding and other evacuations have been premiſed, the patient may take two, three, or four table-ſpoonfuls of this decoction, according as his ſtomach will bear it, three or four times a-day. If it ſhould occaſion vomiting, two of three ounces of ſimple cinnamon-water may be mixed with the quantity of decoction here directed, or it may be taken in ſmaller doſes. As this medicine promotes perſpiration and urine, and likewiſe keeps the body eaſy, it may be of ſome ſervice in a pleuriſy, or any other inflammation of the breaſt.

No one will imagine that theſe medicines are all to be uſed at the ſame time. We have mentioned different things, on purpoſe that people may have it in their power to chooſe; and likewiſe, that when one cannot be obtained, they may make uſe of another. Different medicines are no doubt neceſſary in the different periods of a diſorder; and where one fails of ſucceſs, or diſagrees with the patient, it will be proper to try another.

What is called the criſis, or height of the fever, is ſometimes attended with very alarming ſymptoms; as difficulty of breathing, an irregular pulſe, convulſive motions, &c. Theſe are apt to frighten the attendants, and induce them to do improper things, as bleeding the patient, giving him ſtrong ſtimulating medicines, or the like. But they are only the ſtruggles of Nature to overcome the diſeaſe, in which ſhe ought to be aſſiſted by plenty of diluting drink, which is then peculiarly neceſſary. If the patient's ſtrength, however, be much exhauſted by the diſeaſe, it will be neceſſary at this time to ſupport him with frequent ſmall draughts of wine-whey, negus, or the like.

When the pain and fever are gone, it will be proper, after the patient has recovered ſufficient ſtrength, to give him ſome gentle purges, as thoſe directed towards the end of the acute continual fever. He ought likewiſe to uſe a light diet, of eaſy digeſtion, and his drink ſhould be butter-milk, whey, and other things of a cleanſing nature.

## *The Baſtard or Spurious Pleuriſy*

GENERALLY goes off by keeping warm for a few days, drinking plenty of diluting liquors, and obſerving a cooling regimen. It is known by a dry cough, a quick pulſe, and a difficulty

* See Appendix, Decoction of ſeneka root.

of lying on the affected side, which last does not always happen in the true pleurisy. Sometimes indeed this disease proves obstinate, and requires bleeding, with cupping, and scarifications of the part affected. These, together with the use of nitrous and other cooling medicines, seldom fail to effect a cure.

### *The Paraphrenitis,*

OR inflammation of the diaphragm, is so nearly connected with the pleurisy, and resembles it so much in the manner of treatment, that it is scarce necessary to consider it as a separate disease.

It is attended with a very acute fever, and an extreme pain in the part affected, which is generally augmented by coughing, sneezing, drawing in the breath, taking food, going to stool, making water, &c. Hence the patient breathes quick, and draws in his bowels to prevent the motion of the diaphragm; is restless, anxious, has a dry cough, a hickough and often a delirium. A convulsive laugh, or a kind of involuntary grin, is a common symptom of this disease.

Every method must be taken to prevent a suppuration, as it is impossible to save the patient's life when this happens. The regimen and medicine are in all respects the same as in the pleurisy. Emollient clysters are peculiarly useful, as they relax the bowels, and by that means make a derivation from the part affected.

## CHAPTER XVII.

### *Of a Peripneumony or Inflammation of the Lungs.*

AS this disease affects an organ which is absolutely necessary to life, it is always attended with danger. Persons who abound with blood, whose fibres are tense and rigid, who feed upon gross aliment, and drink strong viscid liquors, are most liable to a peripneumony. It is generally fatal to those who have a flat breast, or narrow chest, and to such as are afflicted with an asthma, especially in the decline of life. Sometimes the inflammation reaches to one lobe of the lungs only, at other times the whole of the organ is affected; in which case the disease can hardly fail to prove fatal.

When the disease proceeds from a viscid matter obstructing the vessels of the lungs, it is called a *spurious* or *bastard peripneumony*. When it arises from a thin acrid defluxion on the lungs, it is denominated a *catarrhal peripneumony*, &c.

CAUSES.——An inflammation of the lungs is sometimes a primary disease, and sometimes it is the consequence of other dis-

eaſes, as a quinſey, a pleuriſy, &c. It proceeds from the ſame cauſes as the pleuriſy, *viz.* an obſtructed perſpiration from cold, wet clothes, &c. or from an increaſed circulation of the blood, by violent exerciſe, the uſe of ſpiceries, ardent ſpirits, and ſuch like. The pleuriſy and peripneumony are often complicated; in which caſe the diſeaſe is called a *pleuroper ipneumony*.

SYMPTOMS.——Moſt of the ſymptoms of a pleuriſy likewiſe attend an inflammation of the lungs; only in the latter the pulſe is more ſoft and the pain leſs acute; but the difficulty of breathing, and oppreſſion of the breaſt, are generally greater.

REGIMEN.——The regimen and medicine are in all reſpects the ſame in the true peripneumony as in the pleuriſy, the aliment ought to be more ſlender and thin in this than in any other inflammatory diſeaſe. Dr. Arbuthnot aſſerts, that even common whey is ſufficient to ſupport the patient, and that decoctions of barley, and infuſions of fennel roots in warm water with milk, are the moſt proper both for drink and nouriſhment. He recommends the ſteam of warm water taken in by the breath, which ſerves as a kind of internal fomentation, and helps to attenuate the impacted humours. If the patient has looſe ſtools, but is not weakened by them, they are not to be ſtopped, but rather promoted by emollient clyſters.

The *ſpurious* or *baſtard* peripneumony is occaſioned by a viſcid matter obſtructing the veſſels of the lungs. It commonly attacks the old, infirm, and phlegmatic, in winter or wet ſeaſons.

The patient at the beginning is cold and hot by turns, has a ſmall quick pulſe, feels a ſenſe of weight upon his breaſt, breathes with difficulty, and ſometimes complains of a pain and giddineſs of his head. His urine is uſually pale, and his colour very little changed.

The diet in this, as well as in the true peripneumony, muſt be very ſlender, as weak broths, ſharpened with the juice of orange or lemon, and ſuch-like. His drink may be thin water-gruel ſweetened with honey, or a decoction of the roots of fennel, liquorice, and quick graſs. An ounce of each of theſe may be boiled in three Engliſh pints of water to a quart, and ſharpened with a little currant jelly, or the like.

Bleeding and purging are generally proper at the beginning of this diſeaſe; but if the patient's ſpittle is pretty thick, neither of them are neceſſary. It will be ſufficient to aſſiſt the expectoration by ſome of the ſharp medicines recommended for that purpoſe in the pleuriſy, as the ſolution of gum ammoniac with oxymel of ſquills, &c. Bliſters have generally a good effect, and ought to be applied pretty early*.

If the patient does not ſpit, he muſt be bled according as his ſtrength will permit, and have a gentle purge adminiſtered. Af-

* Previous to the application of bliſters, cupping-glaſſes ſhould be applied to the painful part, which generally afford conſiderable relief. (I. C.)

terwards his body muſt be kept open with clyſters, and the expectoration promoted, by taking every four hours two table-ſpoonfuls of the ſolution mentioned above.

When an inflammation of the breaſt does not yield to bleeding, bliſtering, and other evacuations, it commonly ends in a ſuppuration, which is more or leſs dangerous, according to the part where it is ſituated. When this happens in the pleura, it ſometimes breaks outwardly, and the matter is diſcharged by the wound.

When the ſuppuration happens within the ſubſtance or body of the lungs, the matter may be diſcharged by expectoration; but if the matter floats in the cavity of the breaſt, between the pleura and the lungs, it can only be diſcharged by an inciſion made betwixt the ribs.

If the patient's ſtrength does not return after the inflammation is to all appearance removed; if his pulſe continues quick though ſoft, his breathing difficult and oppreſſed; if he has cold ſhiverings at times, his cheeks flushed, his lips dry; and if he complains of thirſt, and want of appetite, there is reaſon to fear a ſuppuration, and that a phthiſis or conſumption of the lungs will enſue*. We ſhall therefore next proceed to conſider the proper treatment of that diſeaſe.

## CHAPTER XVIII.

### *Of Conſumptions.*

A COMSUMPTION is a waſting or decay of the whole body from an ulcer, tubercles, or concretions of the lungs, an empyema, an atrophy, or a cachexy.

Dr. Arbuthnot obſerves, that in his time conſumptions made up above one-tenth part of the bills of mortality in and about London. There is reaſon to believe they have rather increaſed ſince; and we know from experience, that they are not leſs fatal in ſome other towns of England than in London.

Young perſons, betwixt the age of fifteen and thirty, of a ſlender make, long neck, high ſhoulders, and flat breaſts, are moſt liable to this diſeaſe.

Conſumptions prevail more in England, than in any other part of the world, owing perhaps to the great uſe of animal food and malt liquors, the general application to ſedentary employments,

* In caſes of this kind, where ſeveral quarts of pus or matter have been diſcharged from the mouth, the patient has been recovered by reading, during ſpring and ſummer, in the country, aſſiſted by a nouriſhing diet, exerciſe on horſe-back, and the extract of bark. (I. C.)

and the great quantity of pit-coal which is there burnt; to which we may add the perpetual changes in the atmosphere, or variableness of the weather.

CAUSES.——It has already been observed, that an inflammation in the breast often ends in an imposthume: Consequently, whatever disposes people to this disease, must likewise be considered as a cause of consumptions.

Other diseases, by vitiating the habit, may likewise occasion consumptions; as the scurvy, the scrophula, or king's evil, the venereal disease, the asthma, small-pox, measles, &c.

As this disease is seldom cured, we shall endeavour the more particularly to point out its causes, in order that people may be enabled to avoid it. These are:

——Confined or unwholesome air. When this fluid is impregnated with the fumes of metals or minerals, it proves extremely hurtful to the lungs, and often corrodes the tender vessels of that necessary organ.

——Violent passions, exertions, or affections of the mind; as grief, disappointment, anxiety, or close application to the study of abstruse arts or sciences.

——Great evacuations; as sweating, diarrhœas, diabetes, excessive venery, the fluor albus, an over discharge of the menstrual flux, giving suck too long, &c.

——The sudden stoppage of customary evacuations; as the bleeding piles, sweating of the feet, bleeding at the nose, the menses, issues, ulcers, or eruptions of any kind.

——Injuries done to the lungs, calculi, &c. I lately saw the symptoms of a phthisis occasioned by a small bone sticking in the *bronchæ*. It was afterwards vomited along with a considerable quantity of purulent matter, and the patient, by a proper regimen, and the use of the Peruvian bark, recovered.

——Making a sudden transition from a hot to a very cold climate, change of apparel, or whatever greatly lessens the perspiration.

——Frequent and excessive debaucheries. Late watching, and drinking strong liquors, which generally go together, can hardly fail to destroy the lungs. Hence, the *bon companion* generally falls a sacrifice to this disease.

——Infection. It is suspicious that Consumptions are caught by sleeping with the diseased; for which reason, this should be carefully avoided. It cannot be of great benefit to the sick, and must hurt those in health.

——Occupations in life. Those artificers who sit much, and are constantly leaning forward, or pressing upon the stomach and breast, as cutlers, taylors, shoe-makers, seamstresses, &c. often die of consumptions. They likewise prove fatal to singers, and all who have occasion to make frequent and violent exertions of the lungs.

——Cold. More consumptive patients date the beginning of their disorders from wet feet, damp beds, night air, wet clothes,

or catching cold after the body had been heated, than from all other cauſes.

Sharp, ſaline, and aromatic aliments, which heat and inflame the blood, are likewiſe frequently the cauſe of conſumptions.

We ſhall only add, that this diſeaſe is often owing to an hereditary taint, or a ſcrophulous habit; in which caſe it is generally incurable.

SYMPTOMS.——This diſeaſe generally begins with a dry cough, which often continues for ſome months. If a diſpoſition to vomit after eating be excited by it, there is ſtill greater reaſon to fear an approaching conſumption. The patient complains of a more than uſual degree of heat, a pain and oppreſſion of the breaſt, eſpecially after motion; his ſpittle is of a ſaltiſh taſte, and ſometimes mixed with blood. He is apt to be ſad; his appetite is bad, and his thirſt great. There is generally a quick, ſoft, ſmall pulſe; though ſometimes the pulſe is pretty full, and rather hard. Theſe are the common ſymptoms of a beginning conſumption.

Afterwards the patient begins to ſpit a greeniſh, white, or bloody matter. His body is extenuated by the hectic fever, and colliquative ſweats, which mutually ſucceed one another, viz. the one towards night, and the other in the morning. A looſeneſs, and an exceſſive diſcharge of urine, are often troubleſome ſymptoms at this time, and greatly weaken the patient. There is a burning heat in the palms of the hands, and the face generally flushes after eating; the fingers become remarkably ſmall, the nails are bent inwards, and the hairs fall off.

At laſt the ſwelling of the feet and legs, the total loſs of ſtrength, the ſinking of the eyes, the difficulty of ſwallowing, and the coldneſs of the extremities, ſhow the immediate approach of death, which the patient ſeldom believes to be ſo near. Such is the uſual progreſs of this diſeaſe, which, if not early checked, commonly ſets all medicine at defiance.

REGIMEN.——On the firſt appearance of a conſumption, if the patient lives in a large town, or any place where the air is confined, he ought immediately to quit it, and to make choice of a ſituation in the country, where the air is pure and free. Here he muſt not remain inactive, but take every day as much exerciſe as he can bear.

The beſt method of taking exerciſe is to ride on horſeback, as this gives the body a great deal of motion without much fatigue. Such as cannot bear this kind of exerciſe, muſt make uſe of a carriage. A long journey, as it amuſes the mind by a continual change of objects, is greatly preferable to riding the ſame ground over and over. Care however muſt be taken to avoid catching cold from wet clothes, damp beds, or the like. The patient ought always to finiſh his ride in the morning, or at leaſt before dinner; other wiſe it will oftener do harm than good.

It is a pity that thoſe who attend the ſick ſeldom recommend

riding in this diſeaſe, till the patient is either unable to bear it, or the malady has become incurable. Patients are likewiſe apt to triſle with every thing that is in their own power. They cannot ſee how one of the common actions of life ſhould prove a remedy in an obſtinate diſeaſe, and therefore they reject it, while they greedily hunt after relief from medicine, merely becauſe they do not underſtand it.

Thoſe who have ſtrength and courage to undertake a pretty long voyage, may expect great advantage from it. This, to my knowledge, has frequently cured a conſumption after the patient was, to all appearance, far advanced in that diſeaſe, and where medicine had proved ineffectual. Hence it is reaſonable to conclude, that if a voyage were undertaken in due time, it would ſeldom fail to perform a cure*.

Such as try this method of cure ought to carry as much freſh proviſions along with them as will ſerve the whole time they are at ſea. As milk is not eaſily obtained in this ſituation, they ought to live upon fruits, rye and Indian muſh, and the broth of chickens, or other young animals, which can be kept alive on board. Such voyages ſhould be undertaken, if poſſible, in the mildeſt ſeaſon, and towards a warmer climate†.

Thoſe who have not courage for a long voyage may travel into a more ſouthern climate, as the ſouth of France, Spain or Portugal; and if they find the air of theſe countries agree well with them, they ſhould continue there, at leaſt till their health be confirmed.

Next to proper air and exerciſe, we would recommend a due attention to diet. The patient ſhould eat nothing that is either heating or hard of digeſtion, and his drink muſt be of a ſoft and cooling nature. All the diet ought to be calculated to nouriſh and ſupport the patient. For this purpoſe, he muſt keep chiefly to the uſe of vegetables and milk. Milk alone is of more value in this diſeaſe than the whole materia medica.

Aſſes' milk is commonly reckoned preferable to any other; but it cannot always be obtained; beſides, it is generally taken in a very ſmall quantity; whereas, to produce any effects, it ought to make a conſiderable part of the patient's diet. It is hardly to be expected, that a gill or two of aſſes' milk, drank in the ſpace of

* The greateſt benefit derived to conſumptive patients in going to ſea, is in proportion to the time they are on the ocean, the temperature of the latitude they ſail in, which ſhould be agreeably warm. Therefore, a long voyage, commenced at an early period of this diſeaſe, or what would be more beneficial, a continuance for ten or twelve months, on the ocean, a patient in ſuch a ſituation, with tolerable accommodation, would in all probability effect a recovery. (I. C.)

† Though I do not remember to have ſeen one inſtance of a genuine conſumption of the lungs cured by medicine, yet I have known a Weſt-India voyage work wonders in that dreadful diſorder.

twenty-four hours, ſhould be able to produce any conſiderable change in the humours of an adult; and when people do not perceive its effects ſoon, they loſe hope, and ſo leave it off. Hence, this medicine, however valuable, very ſeldom performs a cure. The reaſon is obvious; it is commonly uſed too late, is taken in too ſmall quantities, and is not duly perſiſted in.

I have known very extraordinary effects from aſſes' milk in obſtinate coughs, which threatened a conſumption of the lungs; and do verily believe, if uſed at this period, that it would ſeldom fail; but if it be delayed till an ulcer is formed, which is generally the caſe, how can it be expected to ſuccced?

Aſſes' milk ought to be drank, if poſſible, in its natural warmth, and, by a grown perſon, in the quantity of half an Engliſh pint at a time. Inſtead of taking this quantity night and morning only, the patient ought to take it four times, or at leaſt thrice a-day, and to eat a little light bread along with it, ſo as to make it a kind of meal.

If the milk ſhould happen to purge, it may be mixed with old conſerve of roſes. When that cannot be obtained, the powder of crabs' claws may be uſed in its ſtead. Aſſes' milk is uſually ordered to be drank warm in bed; but as it generally throws the patient into a ſweat when taken in this way, it would perhaps be better to give it after he riſes.

Some extraordinary cures in conſumptive caſes have been performed by women's milk. Could this be obtained in ſufficient quantity, we would recommend it in preference to any other. It is better if the patient can ſuck it from the breaſt, than to drink it afterwards. I knew a man who was reduced to ſuch a degree of weakneſs in a conſumption, as not to be able to turn himſelf in bed. His wife was at that time giving ſuck, and the child happening to die, he ſucked her breaſts, not with a view to reap any advantage from the milk, but to make her eaſy. Finding himſelf greatly benefited by it, he continued to ſuck her till he became perfectly well, and is at preſent a ſtrong and healthy man.

Some prefer butter-milk; it is a very valuable medicine if the ſtomach be able to bear it. It does not agree with every perſon at firſt; and is often laid aſide without a ſufficient trial. It ſhould at firſt be taken ſparingly, and the quantity gradually increaſed, until it comes to be almoſt the ſole food. I never knew it ſucceed unleſs where the patient almoſt lived upon it.

Cows' milk is moſt readily obtained of any, and though it be not ſo eaſily digeſted as that of aſſes' or mares', it may be rendered lighter by adding to it an equal quantity of barley-water, or allowing it to ſtand for ſome hours, and afterwards taking off the cream. If it ſhould, notwithſtanding, prove heavy on the ſtomach, a ſmall quantity of brandy or rum, with a little ſugar, may be added, which will render it both more light and nouriſhing.

Milk may for ſome time diſagree with a ſtomach that has not

been accuſtomed to digeſt any thing but fleſh and ſtrong liquors, which is the caſe with many of thoſe who fall into conſumptions. We do not however adviſe thoſe who have been accuſtomed to animal food and ſtrong liquors, to leave them off all at once. This might be dangerous. It will be neceſſary for ſuch to eat a little once a day of the fleſh of ſome young animal, or rather to uſe the broth made of chickens, veal, lamb, or ſuch-like. They ought likewiſe to drink a little wine made into negus, or diluted with twice or thrice its quantity of water, and to make it gradually weaker till they can leave it off altogether.

Theſe muſt be uſed only as preparatives to a diet conſiſting chiefly of milk and vegetables, which the ſooner that the patient can be brought to bear, the better. Rice and milk or barley and milk, boiled with a little ſugar, make very proper food. Ripe fruits roaſted, baked, or boiled, are likewiſe proper, as gooſe or currant berry tarts, apples roaſted, or boiled in milk, &c. The jellies, conſerves, and preſerves, &c. of ripe ſubacid fruits, ought to be eaten plentifully, as the jelly of currants, conſerve of roſes, preſerved plums, cherries, &c.

Wholeſome air, proper exerciſe, and a diet conſiſting chiefly of theſe and other vegetables, with milk, is the only courſe that can be depended on in a beginning conſumption. If the patient has ſtrength and ſufficient reſolution to perſiſt in this courſe, he will ſeldom be diſappointed of a cure.

In the populous town of Sheffield, where conſumptions are very common, I have frequently ſeen conſumptive patients, who had been ſent to the country with orders to ride, and live upon milk and vegetables, return in a few months quite plump, and free from any complaint. This indeed was not always the caſe, eſpecially when the diſeaſe was hereditary, or far advanced; but it was the only method in which ſucceſs was to be expected: where it failed, I never knew medicine ſucceed.

If the patient's ſtrength and ſpirits flag, he muſt be ſupported by ſtrong broths, jellies, and ſuch-like. Some recommend ſhell-fiſh in this diſorder, and with ſome reaſon, as they are nouriſhing and reſtorative*. All the food and drink ought however to be taken in ſmall quantities, leſt an overcharge of freſh chyle ſhould oppreſs the lungs, and too much accelerate the circulation of the blood.

The patient's mind ought to be kept as eaſy and cheerful as poſſible. Conſumptions are often occaſioned, and always aggravated, by a melancholy caſt of mind; for which reaſon, muſic, cheerful company, and every thing that inſpires mirth, are highly beneficial. The patient ought ſeldom to be left alone, as brooding over his calamities is ſure to render them worſe.

* I have often known perſons of a conſumptive habit, where the ſymptoms were not violent, reap great benefit from the uſe of oyſters. They generally ate them raw, and drank the juice along with them.

MEDICINE.——Though the cure of this diſeaſe depends chiefly upon regimen and the patient's own endeavours, yet we ſhall mention a few things which may be of ſervice in relieving ſome of the more violent ſymptoms.

In the firſt ſtage of a conſumption, the cough may ſometimes be appeaſed by bleeding; and the expectoration may be promoted by the following medicines. Take freſh ſquills, gum-ammoniac, and powdered cardamum ſeeds, of each a quarter of an ounce; beat them together in a mortar, and if the maſs proves too hard for pills, a little of any kind of ſyrup may be added to it. This may be formed into pills of a moderate ſize, and four or five of them taken twice or thrice a-day, according as the patient's ſtomach will bear them.

The *lac ammoniacum*, or milk of gum ammoniac, as it is called, is likewiſe a proper medicine in this ſtage of the diſeaſe. It may be uſed as directed in the pleuriſy.

A mixture made of equal parts of lemon-juice, fine honey, and ſyrup of poppies, may likewiſe be uſed. Four ounces of each of theſe may be ſimmered together in a ſauce-pan, over a gentle fire, and a table-ſpoonful of it taken at any time when the cough is troubleſome.

It is common in this ſtage of the diſeaſe to load the patient's ſtomach with oily and balſamic medicines. Theſe, inſtead of removing the cauſe of the diſeaſe, tend rather to increaſe it, by heating the blood, while they pall the appetite, relax the ſolids, and prove every way hurtful to the patient. Whatever is uſed for removing the cough, beſides riding and other proper regimen, ought to be medicines of a ſharp and cleanſing nature; as oxymel, ſyrup of lemon, &c.

Acids have peculiarly good effects in this diſeaſe; they both tend to quench the patient's thirſt and to cool the blood. The vegetable acids, as apples, oranges, lemons, &c. appear to be the moſt proper. I have known patients ſuck the juice of ſeveral lemons every day with manifeſt advantage, and would for this reaſon recommend acid vegetables to be taken in as great quantity as the ſtomach will bear them.

For the patient's drink, we would recommend infuſions or the bitter plants, as ground-ivy, the leſſer centaury, camomile flowers or water-trefoil. Theſe infuſions may be drank at pleaſure. They ſtrengthen the ſtomach, promote digeſtions, and at the ſame time anſwer all the purpoſes of dilution, and quench thirſt much better than things that are luſcious or ſweet. But if the patient ſpits blood, he ought to uſe, for his ordinary drink, infuſions or decoctions of the vulnerary roots, plants, &c*.

There are many other mucilaginous plants and ſeeds, of a healing and agglutinating nature, from which decoctions or infuſions

* See Appendix, Vulnerary decoction.

may be prepared with the same intention; as the orches, the quince-seed, coltsfoot, linseed, sarsaparilla, &c. Simple infusion or boiling is all that is necessary, and the dose may be at discretion.

The conserve of roses is here peculiarly proper. It may either be put into the decoction above prescribed, or eaten by itself. No benefit is to be expected from trifling doses of this medicine. I never knew it of any service unless where three or four ounces at least were used daily for a considerable time. In this way I have seen it produce very happy effects, and would recommend it wherever there is a discharge of blood from the lungs.

When the spitting up of gross matter, oppression of the breast, and the hectic symptoms, show that an imposthume is formed in the lungs, we would recommend the bark, to support the strength of the patient.

An ounce of the bark in powder may be divided into eighteen or twenty doses, of which one may be taken every three hours through the day, in a little syrup, or a cup of horehound-tea.

If the bark should happen to purge, it may be made into an electuary, with the conserve of roses, thus: Take old conserve of roses a quarter of a pound, bark in powder an ounce, syrup of orange or lemon, as much as will make it of the consistence of honey. This quantity will serve the patient four or five days, and may be repeated as there is occasion.

Such as cannot take the bark in substance, may infuse it in cold water. This seems to be the best menstruum for extracting its virtues. Half an ounce of bark in powder may be infused for twenty-four hours in half an English pint of water. Afterwards let it be passed through a fine strainer, and an ordinary tea-cupful of it taken three or four times a-day.

We would not recommend the bark while there are any symptoms of an inflammation of the breast; but when it is certainly known that matter is collected there, it is one of the best medicines which can be used. Few patients indeed have resolution enough to give the bark a fair trial at this period of the disease, otherwise we have reason to believe that some benefit might be reaped from it.

When it is evident that there is an imposthume in the breast, and the matter can neither be spit up nor carried off by absorption, the patient must endeavour to make it break inwardly, by drawing in the steams of warm water or vinegar with his breath, coughing, laughing, or bawling aloud, &c. When it happens to burst within the lungs, the matter may be discharged by the mouth. Sometimes indeed the bursting of the vomica occasions immediate death, by suffocating the patient. When the quantity of matter is great, and the patient's strength exhausted, this is commonly the case. At any rate, he is ready to fall into a swoon, and should have volatile salts or spirits held to his nose.

If the matter discharged be thick, and the cough and breathing become easier, there may be some hopes of a cure. The diet ar

this time ought to be light, but reſtorative, as chicken-broths, ſago-gruel, rice-milk, &c. the drink, butter-milk, or whey, ſweetened with honey. This is likewiſe a proper time for uſing the Peruvian bark, which may be taken as directed above.

If the vomica or impoſthume ſhould diſcharge itſelf into the cavity of the breaſt, betwixt the pleura and the lungs, there is no way of getting the matter out but by an inciſion, as has already been obſerved. As this operation muſt always be perfomed by a ſurgeon, it is not neceſſary here to deſcribe it. We ſhall only add, that it is not ſo dreadful as people are apt to imagine, and that it is the only chance the patient in this caſe has for his life.

A NERVOUS CONSUMPTION, is a waſting or decay of the whole body, without any conſiderable degree of fever, cough or difficulty of breathing. It is attended with indigeſtion, weakneſs, and want of appetite, &c.

Thoſe who are of a fretful temper, who indulge in ſpirituous liquors, or who breathe an unwholeſome air, are moſt liable to this diſeaſe.

We would chiefly recommend, for the cure of a nervous conſumption, a light and nouriſhing diet, plenty of exerciſe in a free open air, and the uſe of ſuch bitters as brace and ſtrengthen the ſtomach; as the bark, gentian root, camomile, horehound, &c. Theſe may be infuſed in water or wine, and a glaſs of it drank frequently.

It will greatly aſſiſt the digeſtion, and promote the cure of this diſeaſe, to take twice a-day twenty or thirty droops of the elixir of vitriol in a glaſs of wine or water. The chalybeate wine is likewiſe an excellent medicine in this caſe. It ſtrengthens the ſolids, and powerfully aſſiſts Nature in the preparation of good blood*.

Agreeable amuſements, cheerful company, and riding about, are however preferable to all medicines in this diſeaſe. For which reaſon, when the patient can afford it, we would recommend a long journey of pleaſure, as the moſt likely means to reſtore his health.

What is called a *ſymptomatic conſumption* cannot be cured without firſt removing the diſeaſe by which it is occaſioned. Thus, when a conſumption proceeds from the ſcrophula or king's evil from the ſcurvy, the aſthma, the venereal diſeaſe, &c. a due attention muſt be paid to the malady from whence it ariſes, and the regimen and medicine directed accordingly.

When *exceſſive evacuations* of any kind occaſion a conſumption, they muſt not only be reſtrained, but the patient's ſtrength muſt be reſtored by gentle exerciſe, nouriſhing diet, and generous cordials. Young and delicate mothers often fall into conſumptions, by giving ſuck too long. As ſoon as they perceive their ſtrength and appetite begin to fail, they ought immediately to wean the child, or provide another nurſe, otherwiſe they cannot expect a cure.

* See Appendix, Chalybeate wine.

Let all, as they wiſh to avoid conſumptions, take as much exerciſe without-doors as they can, avoid unwholeſome air, and ſtudy ſobriety. Conſumptions owe their preſent increaſe not a little to the faſhion of ſitting up late, eating hot ſuppers, and ſpending every evening over a bowl of hot punch or other ſtrong liquors. Theſe liquors, when too freely uſed, not only hurt the digeſtion, and ſpoil the appetite, but heat and inflame the blood, and ſet the whole conſtitution on fire.

## CHAPTER XIX.

### *Of the Slow or Nervous Fever.*

NERVOUS fevers have increaſed greatly of late years in this country, owing, doubtleſs, to our different manner of living, and the increaſe of ſedentary employments; as they commonly attack perſons of a weak, relaxed habit, who neglect exerciſe, eat little ſolid food, ſtudy hard, or indulge in ſpirituous liquors.

CAUSES.——Nervous fevers may be occaſioned by whatever depreſſes the ſpirits, or impoveriſhes the blood; as grief, fear, anxiety, want of ſleep, intenſe thought, living on poor watery diet, unripe fruits, cucumbers, melons, muſhrooms, &c. They may likewiſe be occaſioned by damp, confined, or unwholeſome air. Hence they are very common in rainy ſeaſons, and prove moſt fatal to thoſe who live in dirty low houſes, crowded ſtreets, hoſpitals, jails, or ſuch-like places.

Perſons whoſe conſtitutions have been broken by exceſſive venery, frequent ſalivations, too free an uſe of purgative medicines, or any other exceſſive evacuations, are moſt liable to this diſeaſe.

Keeping on wet clothes, lying on the damp ground, exceſſive fatigue, and whatever obſtructs the perſpiration, or cauſes a ſpaſmodic ſtricture of the ſolids, may likewiſe occaſion nervous fevers. We ſhall only add, frequent and great irregularities in diet. Too great abſtinence, as well as exceſs, is hurtful. Nothing tends ſo much to preſerve the body in a ſound ſtate as a regular diet; nor can any thing contribute more to occaſion fevers of the worſt kind than its oppoſite.

SYMPTOMS.——Low ſpirits, want of appetite, weakneſs, wearineſs after motion, watchfulneſs, deep ſighing, and dejection of mind, are generally the forerunners of this diſeaſe. Theſe are ſucceeded by a quick low pulſe, a dry tongue without any conſiderable thirſt, chillneſs and flushing in turns, &c.

After ſome time, the patient complains of a giddineſs and pain of the head, has a naufea, with reachings and vomiting; the pulſe is quick, and ſometimes intermitting; the urine pale, reſembling

dead ſmall beer, and the breathing is difficult, with oppreſſion of the breaſt, and ſlight alienations of mind.

If towards the ninth, tenth, or twelfth day, the tongue becomes more moiſt, with a plentiful ſpitting, a gentle purging, or a moiſture upon the ſkin; or if a ſuppuration happens in one or both ears, or large puſtules break out about the lips and noſe, there is reaſon to hope for a favourable criſis.

But if there is an exceſſive looſeneſs, or waſting ſweats, with frequent fainting fits; if the tongue, when put out, trembles exceſſively, and the extremities feel cold, with a fluttering or ſlow creeping pulſe; if there is a ſtarting of the tendons, and almoſt total loſs of ſight and hearing, and an involuntary diſcharge by ſtool and urine, there is great reaſon to fear that death is approaching.

REGIME.——It is very neceſſary in this diſeaſe to keep the patient cool and quiet. The leaſt motion will fatigue him, and will be apt to occaſion wearineſs and even faintings. His mind ought not only to be kept eaſy, but ſoothed and comforted with hopes of a ſpeedy recovery. Nothing is more hurtful in low fevers of this kind than preſenting to the patient's imagination gloomy or frightful ideas. Theſe of themſelves often occaſion nervous fevers, and muſt likewiſe aggravate them.

The patient muſt not be kept too low. His ſtrength and ſpirits ought to be ſupported by nouriſhing diet and generous cordials. For this purpoſe, his gruel, panado, or whatever food he takes, muſt be mixed with wine, according as the ſymptoms may require. Pretty ſtrong wine-whey, or ſmall negus, ſharpened with the juice of orange or lemon, will be proper for his ordinary drink. Muſtard-whey is likewiſe a very proper drink in this fever, and may be rendered an excellent cordial-medicine by the addition of a proper quantity of white-wine*.

Wine, in this diſeaſe, if it could be obtained genuine, is almoſt the only medicine that would be neceſſary. Good wine poſſeſſes all the virtues of the cordial medicines, while it is free from many of their bad qualities. I ſay good wine; for, however common this article of luxury is now become, it is rarely to be obtained genuine, eſpecially by the poor, who are obliged to purchaſe it in ſmall quantities.

I have often ſeen patients in low nervous fevers, where the pulſe could hardly be felt, with a conſtant delirium, coldneſs of the extremities, and almoſt every other mortal ſymptom, recover, by uſing in whey, gruel and negus, a bottle or two of ſtrong wine every day. Good old ſound claret is the beſt, and may be made into negus, or given by itſelf, as circumſtances require.

In a word, the great aim in this diſeaſe is to ſupport the patient's ſtrength, by giving him frequently ſmall quantities of the above, or other drinks of a warm and cordial nature. He is not,

* See Appendix, Muſtard-whey.

however, to be over-heated either with liquor or clothes; and his food ought to be light, and given in small quantities.

MEDICINE.——Where a nausea, load, and sickness at stomach prevail at the beginning of the fever, it will be necessary to give the patient a gentle vomit. Fifteen or twenty grains of ipecacuanha in fine powder or a few spoonfuls of the vomiting julep†, will generally answer this purpose very well. This may be repeated any time before the third or fourth day, if the above symptoms continue. Vomits not only clean the stomach, but, by the general shock which they give, promote the perspiration, and have many other excellent effects in slow fevers, where there are no signs of inflammation, and nature wants rousing.

Such as dare not venture upon a vomit, may clean the bowels by an infusion of senna and manna.

In all fevers, the great point is to regulate the symptoms, so as to prevent them from going to either extreme. Thus, in fevers of the inflammatory kind, where the force of the circulation is too great, or the blood dense, and the fibres too rigid, bleeding and other evacuations are necessary. But in nervous fevers, where nature flags, and the solids relaxed, wine, with other cordials should be plentifully administered.

It is necessary to caution people against bleeding in this disease, as there is generally at the beginning an universal stricture upon the vessels, and sometimes an oppression and difficulty of breathing, which suggest the idea of a plethora, or too great a quantity of blood. I have known even some of the faculty deceived by their own feelings in this respect, so far as to insist upon being bled, when it was evident, from the consequences, that the operation was improper.

Though bleeding is generally improper in this disease, yet blistering is highly necessary. Blisters may be applied at all times of the fever with great advantage. If the patient is delirious, he ought to be blistered on the neck or head, and it will be the safest course, while the insensibility continues, as soon as the discharge occasioned by one blister abates, to apply another to some other part of the body, and by that means, keep up a continual succession of them till he be out of danger.

I have been more sensible of the advantage of blistering in this than in any other disease. Blisters not only stimulate the solids to action, but likewise occasion a continual discharge, which may, in some measure, supply the want of critical evacuations, which seldom happen in this kind of fever. They are most proper, either towards the beginning, or after some degree of stupor has come on; in which last case, it will always be proper to blister the head.

If the patient is costive through the course of the disease, it will be necessary to procure a stool, by giving him every other day

† See Appendix, Vomiting Julep.

a clyſter of milk and water, with a little ſugar, to which may be added a ſpoonful of common ſalt, if the above does not operate.

Should a violent looſeneſs come on, it may be checked by ſmall quantities of Venice treacle or laudanum, giving the patient for his ordinary drink the white decoction*.

A miliary eruption ſometimes breaks out about the ninth or tenth day. As eruptions are often critical, great care ſhould be taken not to retard Nature's operation in this particular. The eruption ought neither to be checked by bleeding nor other evacuations, nor puſhed out by a hot regimen; but the patient ſhould be ſupported by gentle cordials, as wine-whey, ſmall negus, ſago-gruel, with a little wine in it, and ſuch-like. He ought not to be kept too warm; yet a kindly breathing ſweat ſhould by no means be checked.

Though bliſters, and the uſe of cordial liquors are the chief things to be depended on in this kind of fever; yet, for thoſe who may chooſe to uſe them, we ſhall mention one or two of the forms of medicine which are commonly preſcribed in it†.

In deſperate caſes, where the hickough and ſtarting of the tendons have already come on, we have ſometimes ſeen extraordinary effects from large doſes of muſk frequently repeated. Muſk is doubtleſs an antiſpaſmodic, and may be given to the quantity of a ſcruple three or four times a-day, or oftener if neceſſary. Sometimes it may be proper to add to the muſk a few grains of camphire, and ſalt of hartſhorn, as theſe tend to promote perſpiration and the diſcharge of urine. Thus, fifteen grains of muſk, with three grains of camphire, and ſix grains of ſalt of hartſhorn, may be made into a bolus with a little ſyrup, and given as above.

If the fever ſhould happen to intermit, which it frequently does towards the decline, or if the patient's ſtrength ſhould be waſted with colliquative ſweats, &c. it will be neceſſary to give him the Peruvian bark. Half a drachm, or a whole drachm, if the ſtomach will bear it, of the bark in fine powder, may be given four or five times a-day in a glaſs of red port or claret. Should the bark in ſubſtance not ſit eaſy on the ſtomach, an ounce of it in powder may be infuſed in a bottle of Liſbon or Rheniſh wine for two or three days, afterwards it may be ſtrained, and a glaſs of it taken frequently‡.

* See Appendix, White Decoction.

† When the patient is low, ten grains of Virginian ſnake root, and the ſame quantity of contrayerva-root, with five grains of Ruſſian caſtor, all in fine powder, may be made into a bolus with a little of the cordial confection or ſyrup of ſaffron. One of theſe may be taken every four or five hours.

The following powder may be uſed with the ſame intention: Take wild Valerian-root in powder one ſcruple, ſaffron and caſtor each four grains. Mix theſe by rubbing them together in a mortar, and give one in a cup of wine-whey three or four times a-day.

‡ The bark may likewiſe be very properly adminiſtered, along with other cordials, in the following manner: Of bark an ounce, orange-peel half an ounce, Virginian ſnake-root two drachms, ſaffron one

Some give the bark in this and other fevers, where there are no ſymptoms of inflammation, without any regard to the remiſſion or intermiſſion of the fever. How far future obſervation may tend to eſtabliſh this practice, we will not pretend to ſay; but we have reaſon to believe that the bark is a very univerſal febrifuge, and that it may be adminiſtered with advantage in moſt fevers where bleeding is not neceſſary, or where there are no ſymptoms of topical inflammation.

## CHAPTER XX.

### *Of the Malignant Putrid or Spotted Fever.*

THIS may be called the peſtilential fever of Europe, as, in many of its ſymptoms, it bears a great reſemblance to the plague. Perſons of a lax habit, a melancholy diſpoſition, and thoſe whoſe vigour has been waſted by long faſting, watching, hard labour, exceſſive venery, frequent ſalivations, &c. are moſt liable to it.

CAUSES.——This fever is occaſioned by foul air, from a number of people being confined in a narrow place, not properly ventilated; from putrid animal and vegetable effluvia, &c. Hence it prevails in camps, jails, hoſpitals, and infirmaries, eſpecially where ſuch places are too much crowded, and cleanlineſs is neglected.

A cloſe conſtitution of the air, with long rainy or foggy weather, likewiſe occaſions theſe fevers. They often ſucceed great inundations in low and marſhy countries, eſpecially when theſe are preceded or followed by a hot and ſultry ſeaſon.

Living too much upon animal food, without a proper mixture of vegetables, or eating fiſh or fleſh that has been kept too long, are apt to occaſion this kind of fever. Sailors on long voyages, and the inhabitants of beſieged cities, are very often viſited with this diſeaſe.

Corn that has been greatly damaged by rainy ſeaſons or long keeping, and water which has become putrid by ſtagnation, &c. may likewiſe occaſion this fever.

Dead carcaſes tainting the air, eſpecially in hot ſeaſons, are very apt to occaſion theſe diſeaſes. Hence, this kind of fever often prevails in countries which are the ſcenes of war and bloodſhed. This ſhows the propriety of removing burying-grounds, ſlaughter-houſes, &c. to a proper diſtance from great towns.

Want of cleanlineſs is a very general cauſe of theſe fevers. Hence

drachm. Let all of them be powdered, and infuſed in an Engliſh pint of the beſt brandy for three or four days. Afterwards the liquor may be ſtrained, and two tea-ſpoonfuls of it given three or four times a day in a glaſs of ſmall wine or negus.

they prevail amongſt the poor inhabitants of large towns, who breathe a confined, unwholeſome air, and neglect cleanlineſs. Such mechanics as carry on dirty employments, and are conſtantly confined within doors, are very liable to this diſeaſe.

We ſhall only add, that malignant, or ſpotted fevers, are highly infectious, and often communicated by contagion. All perſons ought to keep at a diſtance from thoſe affected with ſuch diſeaſes, unleſs their attendance is abſolutely neceſſary.

SYMPTOMS.——The malignant fever is generally preceded by a remarkable weakneſs or loſs of ſtrength, without any apparent cauſe. This is ſometimes ſo great, that the patient can ſcarce walk, or even ſit upright, without being in danger of fainting away. His mind too is greatly dejected; he ſighs, and is full of dreadful apprehenſions.

There is a nauſea, and ſometimes a vomiting of bile; a violent pain of the head, with a ſtrong pulſation or throbbing of the temporal arteries; the eyes often appear red and inflamed, with a pain at the bottom of the orbit; there is a noiſe in the ears, the breathing is laborious, and often interrupted with a ſigh; the patient complains of a pain about the region of the ſtomach, and in his back and loins; his tongue is at firſt white, but afterwards it appears black and chaped; and his teeth are covered with a black cruſt. He ſometimes paſſes worms both upwards and downwards, is affected with tremors or ſhaking, and often becomes delirious.

If blood is let, it appears diſſolved, or with a very ſmall degree of coheſion, and ſoon becomes putrid: the ſtools ſmell extremely fœtid, and are ſometimes of a greeniſh, black, or reddiſh caſt. Spots of a pale purple, dun, or black colour, often appear upon the ſkin, and ſometimes there are violent hæmorrhages, or diſcharges of blood from the mouth, eyes, noſe, &c.

Theſe fevers may be diſtinguiſhed from the inflammatory, by the ſmallneſs of the pulſe, the great dejection of mind, the diſſolved ſtate of the blood, the petechiæ, or purple ſpots, and the putrid ſmell of the excrements. They may likewiſe be diſtinguiſhed from the low or nervous fever by the heat and thirſt being greater, the urine of a higher colour, and the loſs of ſtrength, dejection of mind, and all the other ſymptoms, more violent.

Sometimes the inflammatory, nervous, and putrid ſymptoms are ſo blended together, as to render it very difficult to determine to which claſs the fever belongs. In this caſe, the greateſt caution and ſkill are requiſite. Attention muſt be paid to thoſe ſymptoms which are moſt prevalent, and both the regimen and medicines adapted to them.

Inflammatory and nervous fevers may be converted into malignant and putrid, by too hot a regimen or improper medicines.

The duration of putrid fevers is extremely uncertain; ſometimes they terminate between the ſeventh and fourteenth day, and at other times they are prolonged for five or ſix weeks. Their dura-

tion depends greatly upon the conſtitution of the patient, and the manner of treating the diſeaſe.

The moſt favourable ſymptoms are, a gentle looſeneſs after the fourth or fifth day, with a warm, mild ſweat. Theſe, when continued for a conſiderable time, often carry off the fever, and ſhould never be imprudently ſtopped. Small miliary puſtules appearing between the petechiæ, or purple ſpots, are likewiſe favourable, as alſo hot ſcabby eruptions about the mouth and noſe. It is a good ſign when the pulſe riſes upon the uſe of wine, or other cordials, and the nervous ſymptoms abate; deafneſs coming on towards the decline of the fever, is often a favourable ſymptom*, as are abſceſſes in the groin or parotid glands.

Among the unfavourable ſymptoms, may be reckoned an exceſſive looſeneſs, with a hard ſwelled belly; large black or livid blotches breaking out upon the ſkin; aphthæ in the mouth; cold clammy ſweats; blindneſs; change of the voice; a wild ſtaring of the eyes; difficulty of ſwallowing; inability to put out the tongue; and a conſtant inclination to uncover the breaſt. When the ſweat and ſaliva are tinged with blood, and the urine is black, or depoſits a black ſooty ſediment, the patient is in great danger. Starting of the tendons, and fœtid, ichorous, involuntary ſtools, attended with coldneſs of the extremities, are generally the forerunners of death.

REGIMEN.——In the treatment of this diſeaſe, we ought to endeavour as far as poſſible, to ſupport the patient's ſtrength and ſpirits; and to aſſiſt Nature in expelling the cauſe of the diſeaſe, by gently promoting perſpiration and the other evacuations.

Putrid fevers are often occaſioned by unwholeſome air, and of courſe they muſt be aggravated by it. Care ſhould be taken to prevent air from ſtagnating in the patient's chamber, to keep it cool, and renew it frequently, by opening the doors or windows of ſome adjacent apartment. The breath and perſpiration of perſons in perfect health ſoon render the air of a ſmall apartment noxious; but this will ſooner happen from the perſpiration and breath of a perſon in this diſeaſe.

Beſides the frequent admiſſion of freſh air, we recommend the uſe of vinegar, verjuice, juice of lemon, Seville orange, or any vegetable acid that can be moſt readily obtained. Theſe ought frequently to be ſprinkled upon the floor, the bed, and every part of the room. They may alſo be evaporated with a hot iron, or by boiling, &c. The freſh ſkins of lemons or oranges ought to be laid in different parts of the room, and ſhould be frequently held to the patient's noſe. The uſe of acids in this manner would prove very refreſhing to the patient, and tend to prevent the infection from ſpreading among thoſe who attend him. Strong ſcented herbs, as rue, tanſy, roſemary, wormwood, &c. may be laid in different parts of the houſe, and ſmelled to by thoſe who go near the patient.

* Deafneſs is not always a favourable ſymptom in this diſeaſe. Perhaps it is only ſo when occaſioned by abſceſſes formed within the ears.

The patient muſt be kept cool, quiet and eaſy. The leaſt noiſe will affect his head, and the ſmalleſt fatigue will be apt to make him faint.

Few things are of greater importance in this diſeaſe than acids, which ought to be mixed with all the patient's food, as well as drink. Orange, lemon, or vinegar whey, are all very proper, and may be drank by turns, according to the patient's inclination. They may be rendered cordial by the addition of wine in ſuch quantity as the patient's ſtrength ſeems to require. When he is very low, he may drink negus, with only one half water, and ſharpened with the juice of orange or lemon. In ſome caſes, a glaſs of clear wine may now and then be allowed. The moſt proper wine is Rheniſh; but if the body be open, red-port or claret is to be preferred.

When the body is bound, a tea-ſpoonful of the cream of tartar may be put into a cup of the patient's drink, as there is occaſion; or he may drink a decoction of tamarinds, which will both quench his thirſt, and promote a diſcharge by ſtool.

If camomile-tea will ſit upon his ſtomach, it is a very proper drink. It may be ſharpened by adding to every cup of the tea ten or fifteen drops of the elixir of vitriol.

The food muſt be light, as panado or groat gruel, to which a little wine may be added, if the patient be weak and low; and they ought all to be ſharpened with the juice of orange, the jelly of currants, or the like. The patient ought likewiſe to eat freely of ripe fruits, as roaſted apples, currant or gooſeberry tarts, preſerved cherries, or plumbs, &c.

Taking a little food or drink ſupports the ſpirits: for which reaſon, the patient ought frequently to be ſipping ſmall quantities of ſome of the acid liquors mentioned above, or any that may be more agreeable to his palate or more readily obtained.

If he is delirious, his feet and hands ought to be frequently fomented with a ſtrong infuſion of camomile flowers. This, or an infuſion of the bark, to ſuch as can afford it, cannot fail to have a good effect. Fomentations of this kind relieve the head, by relaxing the veſſels in the extremities.

MEDICINE.——If a vomit be given at the beginning of this fever, it will hardly fail to have a good effect; but if the fever has gone on for ſome days, and the ſymptoms are violent, vomits are not quite ſo ſafe. The body however is always to be kept gently open by clyſters, or mild laxative medicines.

Bleeding is ſeldom neceſſary in putrid fevers. If there be ſigns of an inflammation, it may ſometimes be permitted at the firſt onſet; but the repetition of it generally proves hurtful.

Bliſters are never to be uſed unleſs in the greateſt extremities. If the petechiæ or ſpots ſhould ſuddenly diſappear, the patient's pulſe ſink remarkably, and a delirium, with other bad ſymptoms, come on, bliſtering may be permitted. In this caſe, bliſters are to be applied to the head, and inſide of the legs or thighs. But as they

are ſometimes apt to occaſion a gangrene, we would rather recommend warm cataplaſms or poultices of muſtard and vinegar to be applied to the feet, having recourſe to bliſters only in the utmoſt extremities. It is common in the beginning of this fever to give the emetic tartar in ſmall doſes, repeated every ſecond or third hour, till it ſhall either vomit, purge, or throw the patient into a ſweat. This practice is very proper, if not puſhed ſo far as to weaken the patient.

A ridiculous notion has long prevailed, of expelling the poiſonous matter of malignant diſeaſes by trifling doſes of cordial or alexipharmic medicines. In conſequence of this notion, the contrayerva-root, the cordial confection, the mithridate, &c. have been extolled as infallible remedies. Theſe ſeldom do much good. Where cordials are neceſſary, none is ſuperior to good wine; and we again recommend it both as the ſafeſt and beſt. Wine acids and antiſeptics are the only things to be relied on in the cure of malignant fevers.

In the moſt dangerous ſpecies of this diſeaſe, when it is attended with purple, lived, or black ſpots, the Peruvian bark muſt be adminiſtered. I have ſeen it, when joined with acids, prove ſucceſsful, even in caſes where the petechiæ had the moſt threatening aſpect. But, to anſwer this purpoſe, it muſt not only be given in large doſes, but duly perſiſted in*.

The beſt method of adminiſtering the bark is certainly in ſubſtance. An ounce of it in powder may be mixed with half an Engliſh pint of water, and the ſame quantity of red wine, and ſharpened with the elixir or the ſpirit of vitriol, which will both make it ſit eaſier on the ſtomach, and render it more beneficial. Two or three ounces of the ſyrup of lemon may be added, and two table-ſpoonfuls of the mixture taken every two hours, or oftener, if the ſtomach is able to bear it. Thoſe who cannot take the bark in ſubſtance may infuſe it in wine, as recommended in the preceding diſeaſe. If there be a violent looſeneſs, the bark muſt be boiled in red wine with a little cinnamon, and ſharpened with the elixir of vitriol, as above. Nothing can be more beneficial in this kind of looſeneſs than plenty of acids, and ſuch things as promote a gentle perſpiration.

If the patient be troubled with vomiting, a drachm of the ſalt of wormwood, diſſolved in an ounce and an half of freſh lemon-juice, and made into a draught with an ounce of ſimple cinnamon water, and a bit of ſugar, may be given, as often as neceſſary.

If ſwellings of the glands appear, their ſuppuration is to be promoted by the application of emollient poultices. As ſoon as there is any appearance of matter in them, they ought to be laid open, and the poultices continued.

* In fevers of this type, accompanied with great proſtration of ſtrength, Madeira wine ſhould be adminiſtered with an unſparing hand, beginning with ſmall quantities, and gradually increaſing from one to two bottles, in the courſe of twenty-four hours. (I. C.)

I have known large ulcerous fores break out in various parts of the body, in the decline of this fever, of a livid gangrenous appearance, and a moſt putrid cadaverous ſmell. Theſe gradually healed; and the patient recovered by the plentiful uſe of bark and wine, ſharpened with the ſpirits of vitriol.

For preventing putrid fevers, we would recommend a ſtrict regard to cleanlineſs; a dry ſituation; ſufficient exerciſe in the open air; wholeſome food, and a moderate uſe of generous liquors. Infection ought above all things to be avoided. No conſtitution is proof againſt it. I have known perſons ſeized with a putrid fever, by only making a ſingle viſit to a patient in it; others have caught it by lodging for one night in a town where it prevailed; and ſome by attending the funerals of ſuch as died of it*.

When a putrid fever ſeizes any perſon in a family, the greateſt attention is neceſſary to prevent the diſeaſe from ſpreading. The ſick ought to be placed in a large apartment, as remote from the reſt of the family as poſſible; to be kept extremely clean, and to have freſh air frequently let into his chamber; whatever comes from him ſhould be immediately removed, his linen frequently changed, and thoſe in health ought to avoid all unneceſſary communication with him.

Any one who is apprehenſive of having caught the infection, ought immediately to take a vomit, and to work it off by drinking plentifully of camomile tea. This may be repeated in a day or two, if the apprehenſions ſtill continue, or any unfavourable ſymptoms appear. He ought likewiſe to take an infuſion of the bark and camomile flowers for his ordinary drink; and before he goes to bed, he may drink an Engliſh pint of pretty ſtrong negus, or a few glaſſes of generous wine. I have frequently followed this courſe, when malignant fevers prevailed, and have recommended it to others with conſtant ſucceſs.

People generally fly to bleeding and purging as antidotes againſt infection; but theſe are ſo far from ſecuring them, that they often, by debilitating the body, increaſe the danger.

Thoſe who wait upon the ſick in this diſeaſe ought always to have a piece of ſpunge or a handkerchief dipt in vinegar, or juice of lemon, to ſmell to while near the patient. They ought to waſh their hands, and, if poſſible, to change their clothes, before they go into company†.

* The late Sir John Pringle expreſſed a concern leſt theſe cautions ſhould prevent people from attending their friends or relations when afflicted with putrid fevers. I told him I meant only to diſcourage unneceſſary attendance, and mentioned a number of inſtances where putrid fevers had proved fatal to perſons who were rather hurtful than beneficial to the ſick. He agreed with me, that a good doctor and a careful nurſe were the only neceſſary attendants; and that all others not only endangered themſelves, but, generally, by their ſolicitude and ill-directed care, hurt the ſick.

† Theſe are prudent precautions, particularly cleanlineſs; as to moſt of the others, recommended by our judicious author, they ſeemed to

## CHAPTER XXI.

### *Of the Miliary Fever.*

THIS fever takes its name from the ſmall puſtules or bladders which appear on the ſkin, reſembling, in ſhape and ſize, the ſeeds of millet. The puſtules are either red or white, and frequently both are mixed together.

The whole body is ſometimes covered with puſtules; but they are generally more numerous where the ſweat is moſt abundant, as on the breaſt, the back, &c. A gentle ſweat, or moiſture on the ſkin, greatly promotes the eruption; but, when the ſkin is dry, the eruption is both more painful and dangerous.

Sometimes this is a primary diſeaſe; but it is much oftener only a ſymptom of ſome other malady, as the ſmall-pox, meaſles, ardent, putrid, or nervous fevers, &c. In all theſe caſes it is generally the effect of too hot a regimen or medicines.

The miliary fever chiefly attacks the idle and the phlegmatic, or perſons of a relaxed habit. The young and the aged are more liable to it than thoſe in the vigour and prime of life. It is likewiſe more incident to women than men, eſpecially the delicate and indolent, who keep continually within doors, and live upon weak watery diet. Such females are extremely liable to be ſeized with this diſeaſe in childbed, and often looſe their lives by it.

CAUSES.——The miliary fever is ſometimes occaſioned by violent paſſions or affections of the mind; as exceſſive grief, anxiety, thoughtfulneſs, &c. It may be occaſioned by exceſſive watching, great evacuations, a weak watery diet, rainy ſeaſons, eating too freely of cold, crude unripe fruits, as plums, cherries, cucumbers, melons, &c. Impure waters, or proviſions which have been ſpoiled by rainy ſeaſons, long keeping, &c. may cauſe miliary fevers. They may alſo be occaſioned by the ſtoppage of any cuſtomary evacuation, as iſſues, ſetons, ulcers, the bleeding piles in men, or the menſtrual flux in women, &c.

This diſeaſe in childbed-women is ſometimes the effect of great coſtiveneſs during pregnancy; it may likewiſe be occaſioned by their exceſſive uſe of green traſh, and other unwholeſome things, in which pregnant women are too apt to indulge. But its moſt general cauſe is indolence. Such women as lead a ſedentary life, eſpecially during pregnancy, and at the ſame time live groſsly, can hardly eſcape this diſeaſe in childbed. Hence it proves extremely fatal to women of faſhion, and likewiſe to thoſe women in manufacturing towns, who, in order to aſſiſt their huſbands, ſit cloſe

have little or no effect during the late yellow fever, which prevailed in Philadelphia. We believe the beſt preſervative, if it could be attained, is a cheerful and undiſturbed ſtate of mind. (I. C.)

within doors for almoſt the whole of their time. But among women who are active and laborious, who live in the country, and take ſufficient exerciſe without doors, this diſeaſe is very little known.

SYMPTOMS.——When this is a primary diſeaſe, it makes its attack like moſt other eruptive fevers, with a ſlight ſhivering, which is ſucceeded by heat, loſs of ſtrength, faintiſhneſs, ſighing, a low quick pulſe, difficulty of breathing, with great anxiety and oppreſſion of the breaſt. The patient is reſtleſs, and ſometimes delirious; the tongue appears white, and the hands ſhake, with often a burning heat in the palms; in childbed-women the milk generally goes away, and other diſcharges ſtop.

The patient feels an itching or pricking pain under the ſkin, after which innumerable ſmall puſtules of a red or white colour begin to appear. Upon this the ſymptoms generally abate, the pulſe becomes more full and ſoft, the ſkin grows moiſter, and the ſweat, as the diſeaſe advances, begins to have a peculiar fœtid ſmell; the great load on the breaſt, and oppreſſion of the ſpirits, generally go off, and the cuſtomary evacuations gradually return. About the ſixth or ſeventh day from the eruption, the puſtules begin to dry and fall off, which occaſions a very diſagreeable itching in the ſkin.

It is impoſſible to aſcertain the exact time when the puſtules will either appear or go off. They generally come out on the third or fourth day, when the eruption is critical; but when ſymptomatical, they may appear at any time of the diſeaſe.

Sometimes the puſtules appear and vaniſh by turns. When that is the caſe, there is always danger; but when they go in all of a ſudden, and do not appear again, the danger is very great.

In childbed-women the puſtules are commonly at firſt filled with clear water, afterwards they grow yellowiſh. Sometimes they are interſperſed with puſtules of a red colour. When theſe only appear the diſeaſe goes by the name of a *raſh*.

REGIMEN.——In all eruptive fevers, of whatever kind, the chief point is to prevent the ſudden diſappearing of the puſtules, and to promote their maturation. For this purpoſe the patient muſt be kept in ſuch a temperature, as neither to puſh out the eruption too faſt, nor to cauſe it to retreat prematurely. The diet and drink ought therefore to be in a moderate degree nouriſhing and cordial; but neither ſtrong nor heating. The patient's chamber ought neither to be kept too hot nor cold; and he ſhould not be too much covered with clothes. Above all, the mind is to be kept eaſy and cheerful. Nothing ſo certainly makes an eruption go in as fear, or the apprehenſion of danger.

The food muſt be weak chicken-broth with bread, panado, ſago, or groat-gruel, &c. to a gill of which may be added a ſpoonful or two of wine, as the patient's ſtrength requires, with a few grains of ſalt and a little ſugar. Good apples roaſted or boiled, with other ripe fruits of an opening cooling nature, may be eaten.

The drink may be ſuited to the ſtate of the patient's ſtrength and ſpirits. If theſe be pretty high, the drink ought to be weak; as water-gruel, balm-tea, or the decoction mentioned below*.

When the patient's ſpirits are low, and the eruption does not riſe ſufficiently, his drink muſt be a little more generous; as wine-whey, or ſmall negus, ſharpened with the juice of orange or lemon, and made ſtronger or weaker as circumſtances may require.

Sometimes the miliary fever approaches towards a putrid nature, in which caſe the patient's ſtrength muſt be ſupported with generous cordials, joined with acids; and, if the degree of putreſcence be great, the bark muſt be given. If the head be much affected, the body muſt be kept open by emollient clyſters†.

MEDICINE.——If the food and drink be properly regulated, there will be little occaſion for medicine in this diſeaſe. Should the eruption, however, not riſe, or the ſpirits flag, it will be neceſſary to ſupport the patient with cordials, and to apply bliſters. The moſt proper cordial, in this caſe, is good wine, which may either be taken in the patient's food or drink; and if there be ſigns of putreſcence, the bark and acids may be mixed with wine, as directed in the putrid fever.

Some recommend bliſtering through the whole courſe of this diſeaſe; and where Nature flags, and the eruption comes and goes, it may be neceſſary to keep up a ſtimulus, by a continual ſucceſſion of ſmall bliſters, but not above one at a time. If the pulſe ſinks remarkably, the puſtules fall in, and the head is affected, it will be neceſſary to apply ſeveral bliſters to the moſt ſenſible parts, as the inſide of the legs and thighs, &c.

* Take two ounces of the ſhavings of hartſhorn, and the ſame quantity of ſarſaparilla, boil them in two Engliſh quarts of water. To the ſtrained decoction add a little white ſugar, and let the patient take it for his ordinary drink.

† In the Commercium Literarium for the year 1735, we have the hiſtory of an epidemical miliary fever, which raged at Straſburgh in the months of November, December, and January; from which we learn the neceſſity of a temperate regimen in this malady, and likewiſe that phyſicians are not always the firſt who diſcover the proper treatment of diſeaſes. "This fever made terrible havock even among men of robuſt conſtitutions, and all medicine proved in vain. They were ſeized in an inſtant with ſhivering, yawning, ſtretching and pains in the back, ſucceeded by a moſt intenſe heat; at the ſame time there was a great loſs of ſtrength and appetite. On the ſeventh or ninth day the miliary eruptions appeared, or ſpots like flea bites, with great anxiety, a delirium, reſtleſſneſs, and toſſing in bed. Bleeding was fatal. While matters were in this unhappy ſituation, a midwife, of her own accord, gave to a patient, in the height of the diſeaſe, a clyſter of rain-water and butter without ſalt, and for his ordinary drink a quart of ſpring water, half a pint of generous wine, the juice of a lemon, and ſix ounces of the whiteſt ſugar, gently boiled till a ſcum aroſe, and this with great ſucceſs; for the belly was ſoon looſened, the grievous ſymptoms vaniſhed, and the patient was reſtored to his ſenſes, and ſnatched from the jaws of death." This practice was imitated by others with the like happy effects.

Bleeding is ſeldom neceſſary in this diſeaſe, and ſometimes it does much hurt, as it weakens the patient, and depreſſes his ſpirits. It is never to be attempted unleſs by the advice of a phyſician. It has been cuſtomary to treat this diſeaſe in childbed-women by plentiful bleeding, and other evacuations, as if it were highly inflammatory. But this practice is generally very unſafe. Patients in this ſituation bear evacuations very ill. And indeed the diſeaſe ſeems often to be more of a putrid than of an inflammatory nature.

Though this fever is often occaſioned in childbed-women by too hot a regimen, yet it would be dangerous to leave that off all of a ſudden, and have recourſe to a very cool regimen, and large evacuations. Supporting the patient's ſpirits, and promoting natural evacuations, is here much ſafer than having recourſe to artificial ones; as theſe by ſinking the ſpirits, ſeldom fail to increaſe the danger.

If the diſeaſe proves tedious, or the recovery ſlow, the bark may be taken in ſubſtance, or infuſed in wine or water, as the patient inclines.

The miliary fever, like other eruptive diſeaſes, requires gentle purging, which ſhould not be neglected as ſoon as the fever is gone off, and the patient's ſtrength will permit.

To prevent this diſeaſe, a pure dry air, ſufficient exerciſe, and wholeſome food, are neceſſary. Pregnant women ſhould guard againſt coſtiveneſs, and take daily as much exerciſe as they can bear, avoiding all green traſhy fruits, and other unwholeſome things; and when in childbed, they ought ſtrictly to obſerve a cool regimen.

## CHAPTER XXII.

### *Of the Remitting Fever.*

THIS fever takes its name from a remiſſion of the ſymptoms, which happens ſometimes ſooner, and ſometimes later, but generally before the eighth day. The remiſſion is commonly preceded by a gentle ſweat, after which the patient ſeems greatly relieved, but in a few hours the fever returns. Theſe remiſſions return at very irregular periods, and are ſometimes of longer, ſometimes of ſhorter duration; the nearer however that the fever approaches to a regular intermittent, the danger is the leſs.

CAUSES.——Remitting fevers prevail in low marſhy countries abounding with wood and ſtagnating water; but they prove moſt fatal in places where great heat and moiſture are combined, as in ſome parts of Africa, Bengal in the Eaſt Indies, &c. where remitting fevers are generally of a putrid kind, and prove very fatal. They are moſt frequent in cloſe calm weather, eſpecially after rainy ſeaſons, great inundations, or the like. No age, ſex, or conſtitution,

is exempted from the attack of this fever; but it chiefly ſeizes perſons of a relaxed habit, who live in low dirty habitations, breathe an impure ſtagnating air, take little exerciſe, and uſe unwholeſome diet.

SYMPTOMS.——The firſt ſymptoms of this fever are generally yawning, ſtretching, pain, and giddineſs in the head, with alternate fits of heat and cold. Sometimes the patient is affected with a delirium at the very firſt attack. There is a pain, and ſometimes a ſwelling, about the region of the ſtomach, the tongue is white, the eyes and ſkin frequently appear yellow, and the patient is often afflicted with bilious vomitings. The pulſe is ſometimes a little hard, but ſeldom full, and the blood, when let, rarely ſhows any ſigns of inflammation. Some patients are exceedingly coſtive, and others are afflicted with a very troubleſome looſeneſs.

It is impoſſible to deſcribe all the ſymptoms of this diſeaſe, as they vary according to the ſituation, the ſeaſon of the year, and the conſtitution of the patient. They may be greatly changed by the method of treatment, and by many other circumſtances. Sometimes the bilious ſymptoms predominate, ſometimes the nervous, and at other times the putrid. Nor is it uncommon to find a ſucceſſion of each of theſe, or even a complication of them at the ſame time, in the ſame perſon.

REGIMEN.——The regimen muſt be adapted to the prevailing ſymptoms. When there are any ſigns of inflammation, the diet muſt be ſlender, and the drink weak and diluting. But when nervous or putrid ſymptoms occur, it will be neceſſary to ſupport the patient with food and liquors of a more generous nature, ſuch as are recommended in the immediately preceding fevers. We muſt be very cautious in uſing things of a heating quality, as this fever is frequently changed into a *continual* by an hot regimen, and improper medicines.

Whatever the ſymptoms are, the patient ought to be kept cool, quiet, and clean. His apartment, if poſſible, ſhould be large, and frequently ventilated by letting in freſh air at the doors or windows. It ought to be ſprinkled with vinegar, juice of lemon, or the like. His linen, bed-clothes, &c. ſhould be frequently changed, and all his excrements immediately removed. Theſe precautions are of more importance to the ſick than practitioners are apt to imagine*.

MEDICINE.——In order to cure this fever, we muſt endeavour to bring it to a regular intermiſſion. This intention may be pro-

*Dr. Lind, of Edinburgh, in his inaugural diſſertation concerning the putrid remitting fever of Bengal, has the following obſervation: "The patient's ſhirt, bed-clothes, and bedding, ought frequently to be changed, and expoſed to the air, and all his excrements immediately removed; the bed-chamber ſhould be well ventilated, and frequently ſprinkled with vinegar; in ſhort, every attention ſhould be paid to the patient. I can affirm, that a phyſician who puts theſe in practice will much oftener ſucceed than one who is even more ſkilful, but has not opportunity of uſing theſe means."

moted by bleeding*, if there be any signs of inflammation; but when that is not the case, bleeding ought by no means to be attempted, as it will weaken the patient and prolong the disease. A vomit however will seldom be improper, and is generally of great service. Twenty or thirty grains of ipecacuanha will answer this purpose very well; but, where it can be obtained, we rather recommend a grain or two of tartar emetic, with five or six grains of ipecacuanha, to be made into a draught and given for a vomit. This may be repeated once or twice at proper intervals, if the sickness or nausea continues.

The body ought to be kept open either by clysters or gentle laxatives, as weak infusions of senna and manna, small doses of the lenitive electuary, cream of tartar, tamarinds, stewed prunes, or the like; but all strong or drastic purgatives are to be carefully avoided.

By this course, the fever, in a few days, may generally be brought to a pretty regular or distinct intermission, in which case the bark may be administered, and it will seldom fail to perfect the cure. It is needless here to repeat over again the methods of giving the bark.

The most likely way to avoid this fever is to use a wholesome and nourishing diet, to pay the most scrupulous attention to cleanliness, to keep the body warm, to take sufficient exercise, and in hot countries, to avoid damp situations, night air, evening dews, and the like. In countries where it is endemical, the best preventive medicine which we can recommend, is the Peruvian bark, which may either be chewed, or infused in brandy or wine, &c. Some recommend smoking tobacco as very beneficial in marshy countries, both for the prevention of this and intermitting fevers.

## CHAPTER XXIII.

### *Of the Yellow Fever.*

THIS fever differs materially from every other species of fever that has appeared in North-America. A minute description, therefore, of its symptoms, and the most effectual method of cure, may be an acceptable chapter to this work. No particular variation from what appeared in Philadelphia in the summer and autumn of 1793, has since been discovered in its ravages in other popular cities on the continent of America; we therefore shall only detail the former, as being more generally destructive, and more within the reach of our immediate observations.

This yellow fever derives its appellation, from the yellow

* Blisters should be applied to the arms or legs at an early period of this disease, as they have an evident good effect in procuring an intermission of the fever. [I. C.]

ſuffuſion, that often appeared in the eyes and on the ſkin during the continuance of the diſeaſe. As it was not a general appearance, there may be an impropriety in the term. However, as it has been adopted, we will not contend for a word with thoſe medical gentlemen who agree with us in ideas.

Various cauſes have been ſuggeſted for this diſeaſe; ſome have ſuppoſed it to be indigenous, and the offspring of vegetable putrefaction; others, that it was imported from the Weſt-Indies, and highly contagious in its nature. The latter of theſe opinions, is ſupported by more facts, and appears the moſt probable. In its previous viſitations in this country, which were in ſix different periods, beſides that of 1793, it was always traced to have been imported from the Weſt-Indies. It viſited Charleſton, in South-Carolina, four times, according to the accurate Dr. Lining, viz. in 1732, 1739, 1745, and in 1748. It appears, alſo, from Dr. Lind*, that it was introduced in 1740, by a trunk of wearing apparel; and from the notes of Dr. Redman, it ſeems to have been brought to this city in 1762, by a mariner, who arrived ſick. From that period, it was not obſerved in Philadelphia, till the aforementioned memorable year 1793. The 3d of Auguſt was the firſt day it was diſcovered; which was in Water-ſtreet, between Mulberry and Saſſafras-ſtreets, at a boarding-houſe, generally frequented by ſeamen. Many of theſe people belonged to the zebec privateer Sans Culottes of Nantz, which had juſt entered the Delaware from a cruize, with the ſhip Flora, her prize. The voyage of theſe veſſels, from every circumſtance that could be collected, appears to have brought the diſeaſe indirectly from the Weſt-Indies into this city, by exchanging part of her crew for that of the prize, who were from the Weſt-India iſlands, where this diſeaſe was raging with violence.

The people moſt generally affected, were the native inhabitants of Philadelphia, or of ſome or other parts of the continent of America†. No condition or ſituation in life was exempted from its violence. The timid of both ſexes, the moſt healthy, and thoſe who ſeemed to have all the vigour of youth on their ſide, fell victims to it: No age ſcarcely eſcaped, from the child in the cradle up to confirmed manhood, and even from that to extreme old age. Women during geſtation appeared to be generally ſuſceptible of it. In theſe, it often produced abortion or miſcarriage. It was, however, more fatal to the male than the female ſex; but, the moſt cheerful, fearleſs and gay, of both ſexes, often eſcaped it, as likewiſe ideots, and thoſe who had been deranged in their minds.

* Lind on infection, page 293.

† Strangers from the Weſt-India Iſlands were ſeldom attacked with this diſeaſe, and the negroes originally from the coaſt of Africa, were ſcarcely ever affected, but ſome of thoſe of our own country feli a ſacrifice to its violence. (I. C.)

SYMPTOMS.——This diſeaſe moſt frequently attacked people in the courſe of the night, or early in the morning, with ſome degree of general laſſitude, loſs of appetite, diſagrecable taſte in the mouth, ſudden proſtration of ſtrength, accompanied with univerſal pain and foreneſs over the body, particularly about the large joints. Theſe were ſoon after ſucceeded by ſome degree of chilneſs, or alternate chills and fluſhes of heat, but very ſeldom a complete rigor. During the continuance of this ſtate, the face appeared pallid, the features contracted, the whole countenance exhibiting a dejected aſpect, with a correſponding ſtate of mind. After this, there was perceived a ſlight pain in the fore or back part of the head, and frequently ſome degree of vertigo, with a ſenſe of fatigue commonly about the loins, often extending towards the iliæ and pubes; together with an uneaſy ſenſation between the ſhoulders and back of the neck. Theſe ſymptoms hourly increaſed in violence, attended frequently with diſagreeable eructations, naufea, and frequent retching to vomit, particularly after taking large draughts of warm or cool drinks, or upon motion of the body.

The eyes were generally highly ſuffuſed, exhibiting the appearance of a painted eye or one minutely injected, accompanied with a ſenſation as if irritated by ſand, and generally an averſion to light. This I have often obſerved to take place during the rigor, although generally at a more advanced period of the diſeaſe, or ſometimes not at all during the whole courſe of it.

After the rigor, the pulſe generally became frequent, tenſe, and tolerably even; at other times ſoft and irregular, the heat moſtly a little higher than the healthy ſtandard. The ſtate of the ſkin variable, ſometimes moiſt, but generally dry; reſpiration a little more frequent than ordinary, attended with ſighing and oppreſſion at the præcordia, indicating great diſtreſs. Theſe were obſervable even from the acceſſion of the rigor; at other times not until a more advanced period.

The tongue was generally moiſt and white, eſpecially in the middle, and red or of a purpliſh hue towards the edges and tip. The bowels were generally coſtive, but ſometimes had a diarrhœa, urine of a higher colour than natural, and ſmall in quantity.

As the evening approached, every ſymptom became aggravated, the pulſe more frequent, full and ſtrong, heat conſiderably augmented, pain in the head and back excruciating; in the former, ſhooting from temple to temple, in the latter to the hips, and extending down the thighs; ſkin dry and parched, ſometimes a partial moiſture, particularly when the bed-clothes were increaſed, but without any abatement of the febrile ſymptoms.

The ſickneſs and retching increaſed, with an ejection of frothy or bilious matter, or whatever fluid was laſt received into the ſtomach, accompanied with pain and foreneſs in the region of the ſtomach, upon the leaſt preſſure, with a ſenſation of inceſſant burning, and reſtleſſneſs; ſo that no poſture afforded any relief. During

the exacerbation, the respiration became more frequent, with an increase of sighing, and slight pain and throbbing in one or other of the hypochondriac regions, with strong beating in the most conspicuous arterial trunks. The face was very much flushed, and the features considerably distorted, with a slight hæmorrhage from one or both nostrils, and an increased suffusion of the eyes.

The intellectual faculties at times appeared confused, but seldom in a complete delirium. In the intervals of reason, the patient was very desponding, and under dreadful apprehensions for the event. He complained much of thirst, which was almost insatiable, for no sooner did any fluid reach the stomach, than it was instantly rejected with violence. Every morning the symptoms suffered some abatement*, and the patient generally during the first twenty-four or forty-eight hours complained of light shivering, which became varied throughout the day, with vicissitudes of heat and partial moisture on the skin. He seemed much inclined to doze, from which he was very often awaked by frightful dreams; after which he generally became very watchful. As the disease proceeded, the tongue was very little altered from a state of health, except appearing in furrows, or chopped and of a bluish colour; at other times yellow or brown in the middle, and bluish at the edges and tip, but seldom dry. Stools, when procured, were generally fætid and frothy, but seldom bilious. The urine was variable, generally of a higher colour than natural. Some of these symptoms which marked the first stage, proceeded rapidly to increase, with a mitigation of others, and the rise of new ones, unless an intermission supervened on or before the fourth day, and the patient recovered. But most frequently, instead of this intermission, a mere composure of symptoms only took place, which was too often fallacious. During this, the eyes and skin sometimes became yellow, and the patient appeared so placid to the attendants, that they often thought him out of danger. But this treacherous tranquillity soon vanished, and the second stage commenced with a different train of symptoms, and with redoubled violence. The vigour which before was excessive, now declined apace, and the disease put on a different complexion. The pain in the head and back, which was before excessive, and almost intolerable, frequently abated on a sudden, and the fever assumed more and more the symptoms of the nervous kind; the pulse became less frequent, soft, and feeble; and sometimes even slower than in a state of health; the face much less flushed, the features more tranquil, with a deadly aspect of the countenance, or sometimes it was but little altered. The suffusion of the eyes frequently increased; the heat became considerably

* It may not be improper to observe, that for several weeks after the contagious fever made its appearance in Philadelphia, intermitting and remitting fevers were met with at a short distance from the place where the malignant fever was spreading its ravages.

diminiſhed, and in ſome caſes, leſs than in a ſtate of health; ſkin cool, ſometimes with a clammy moiſture on the face, neck, and back of the hands; the ſickneſs at ſtomach increaſed with a burning ſenſation in the region of it, and continual vomiting of frothy matter; at other times it was bilious, ſtreaked with blood. In the female ſex, if the menſes did not flow at their uſual period, there was generally a quantity of blood brought up by vomiting, accompanied with violent ſtricture about the præcordia, and a ſenſe of weight, with great flatulency in the ſtomach, and the inteſtines, which was very diſtreſſing; for they were generally coſtive, and had not energy ſufficient to expel the wind either upwards or downwards. The tongue in this ſtage trembled much; and with reſpect to colour, it was variable; in the former, often nearly natural, at other times covered over with mucus verging towards black, particularly in the middle; ſometimes dry, but generally moiſt, and not unfrequently of a florid colour. It appeared as if rubbed over with the red particles of the blood, with deep furrows in it or chopped. When the patient was deſired to put it out of the mouth, he would continue it until he was told to draw it in. The thirſt was much augmented, with a continual dryneſs of the lips and fauces. The confuſion of the intellects increaſed to a complete delirium; the reſtleſſneſs became truly diſtreſſing, and the patient almoſt outrageous, and in ſome caſes maniacal.

The ſkin and eyes aſſumed a deep yellow colour, with the ſame appearance in the urine, which was ſmall in quantity, and diſcharged with difficulty. When the ſkin was not ſuffuſed, the urine was turbid, depoſiting a deep brown ſediment. The reſpiration was ſlower than natural, except when the body was much agitated by the extreme reſtleſſneſs, accompanied with heavy ſighing, and much debility in all the moving powers of the body. The patient generally lay on his back, with his feet drawn up towards his body; nevertheleſs, he had ſufficient power, when urged by the call of Nature, to riſe from his bed.

In the decline of this ſtage, the ſkin was ſometimes covered over with petechial eruptions, appearing like the ſtings of nettles, of a dark-red colour, principally about the neck and breaſt, accompanied ſometimes with hæmorrhages from different parts of the body; but theſe ſymptoms more particularly belong to the third and laſt ſtage. The duration of the ſecond ſtage was various, generally according to the violence of the ſymptoms or to the duration and ſeverity of the preceding ſtage. It ſeldom laſted longer than fifty or ſixty hours before death took place, and ſometimes without the occurrence of many of the ſymptoms of the laſt ſtage.

This ſtage generally commenced with the pulſe becoming very feeble intermitting, and almoſt imperceptible at the wriſt; frequently not more than thirty or thirty-five ſtrokes in a minute. There was alſo a great diminution of the heat of the whole body, except about the præcordia, which ſeemed, if the expreſſion may

be uſed, to be *more tenacious of its heat than any other* part of the body, and was the laſt part that ſurrendered it up after death.

The ſkin became much cooler, and covered univerſally with a clammy moiſture; the countenance exhibited a deadly aſpect; the eyes leſs painful, but ſo dreadfully ſuffuſed, as ſometimes almoſt to obliterate the colour of the tunica albuginea, with great twitching of the muſcles of the face, and general ſtartings of the tendons throughout the body. The petechiæ increaſed, and became of a purpliſh colour, between which the ſkin was of a deep yellow; great delirium, with continual reſtleſſneſs ſucceeded. The patient lying principally on his back, the powers not being ſufficient to retain him on his ſides; the feet were generally drawn up, the whole body frequently ſliding down in bed. The vomiting increaſed, and the matter ejected was of a dark colour, reſembling coffee-grounds, ſometimes mixed with blood*. The following were uſual appearances; viz. great flatulency; hæmorrhagies from the different parts of the body; tongue frequently covered over with blood, and of a florid colour; at other times black and dry; urine very offenſive; ſometimes a total ſuppreſſion of it, and when ſtools were procured, they were extremely black and fætid; livid ulcers in the mouth; and the parts where bliſters had been applied, aſſumed a black aſpect; laborious and deep reſpiration, with heavy ſighing and great oppreſſion at the præcordia; faultering in the ſpeech; cold and livid extremities; involuntary diſcharges of the fæces; loſs of ſwallowing; coma; eyes glazy. Startings and convulſions frequently cloſed the ſcene.

Theſe were the appearances of the malignant fever through its ſeveral ſtages. Although in its firſt attack it was frequently much varied. Sometimes the patients were ſeized of a ſudden, at other times in the manner above deſcribed; but often, in its different ſtages, it was much diverſified, according to the violence and duration of the ſymptoms, to the age, ſex, and conſtitution of the patient. In ſome, the diſeaſe terminated in death, during the inflammatory period; in others, it was hurried ſo precipitately through the ſtages, that they could hardly be diſcriminated by the moſt accurate obſerver, before the patient's fate was determined. In other caſes, it paſſed with ſome degree of regularity, as above marked; and the diſſolution or recovery, was protracted to an uncommon period. This was particularly the caſe in thoſe people who laboured under a ſevere ſalivation from the effects of mercury. In judging concerning the event of the malignant fever during its firſt ſtage, the danger was generally in proportion to the degree of inflammatory action. Of this an idea may be formed from the violence and duration of the ſymptoms.

* From the experiments I have made on the black matter or vomit, it ſeemed to have ſcarce any of the properties of putrid bile or blood; but appeared to be a diſeaſed ſecretion from the liver, poſſeſſing but little activity when applied in any form to an healthy human ſyſtem. (I. C.)

The febrile affection, when very conſiderable, was demonſtrated by the violent pain in the head and back, great ſuffuſion of the face and eyes, with obvious diſtortion of the features; nauſea and vomiting, with a ſenſe of univerſal ſoreneſs, particularly in the limbs. The danger was then imminent.

When the inflammatory ſtage was of ſhort duration and of great violence, accompanied with unuſual quick reſpiration, heavy ſighing, and great oppreſſion at the præcordia from the commencement, together with great reſtleſſneſs, confuſion of the intellects and deep deſpondency of mind, with a dread of ſpeedy diſſolution, they were to be conſidered as very unfavourable ſymptoms.

When very great proſtration of ſtrength, or a ſpontaneous diarrhœa, appeared after bleeding, without manifeſt relief to the patient, they were generally unfavourable ſymptoms; indicating danger in proportion to their violence.

Should a yellow tinge in the eyes and ſkin appear, which is merely an accidental circumſtance, although it has been conſidered, by ſome of the tropical writers, as an unfavourable appearance; by others, as expreſſive of the criſis of the diſeaſe; my experience does not corroborate either the one or the other, but I am induced to conſider it as a favourable, rather than an unfavourable occurrence. Should the retching and vomiting be much increaſed, with dark or coffee-coloured matter ejected, death generally enſued.

Fatality commonly happened on the fourth or fifth day; in ſome caſes, on the twelfth, and even on the twenty-fourth and twenty-fifth day. But theſe patients, in addition to the diſeaſe, often had a ſevere ſalivation from the adminiſtration of large quantities of calomel during their indiſpoſition. The ſalivary diſcharge, in all probability, protracted life.

A favourable prognoſis may be formed in this ſtage of the diſeaſe, from the febrile ſymptoms being more moderate, together with the abſence of ſome of thoſe before-mentioned ones, particularly the ſuffuſion of the eyes, ſighing and vomiting, eſpecially if a ſlight hæmorrhagy takes place from the noſtrils, with eruptions about the mouth, a ſlight cough, and an expectoration of yellowiſh matter, with bilious evacuations by ſtool, particularly if they afford relief to the patient, together with the formation of abſceſſes in different parts of the body. Theſe are frequently attended with an abatement of almoſt every other ſymptom, and the patient recovers.

In the ſecond ſtage: If the pulſe became very feeble, ſmall and intermitting,* with a conſiderable diminution of heat below the natural ſtandard, exceſſive vomiting, with great burning in the region of the ſtomach, particularly if the matter ejected be black,

* In elderly people, I have found the pulſe intermitting in ſeveral caſes, and they always recovered.

which was frequently the caſe, the patient had but a ſhort time to live.

There was little information to be acquired in any period of this diſeaſe, from the appearance of the urine, but when it was dark and fætid, the patient delirious, troubled much with flatulency, great ſuffuſion of the eyes, a deadly aſpect of the countenance, with vomiting of blood, which frequently occurred in the female ſex, when their menſes did not flow at the uſual period, and when it happened to women at the period of life when they become extremely irregular, and generally ceaſe to flow, the prognoſis will be found very unfavourable. At that time of life, the ſyſtem undergoes a very material change, being about to accommodate itſelf to a new mode of action. It is ſcarce ever able to withſtand this, with the violence of ſo dreadful a diſeaſe.

When the tongue was florid, appearing as if rubbed over with the red particles of the blood, accompanied with a clammy moiſture on the different parts of the body, reſpiration laborious, with ſighing and livid petechiæ generally ſpread over the ſkin, the parts where bliſters were applied becoming of a dark colour, together with the poſture of the patient's body indicating great debility, with difficulty in making water, although the pulſe be at the ſame time tolerably even and ſtrong, which is not unfrequently the caſe, they are marks of extreme danger.

A favourable prognoſis in this ſtage, as well as in the preceding, does not depend on a ſolitary favourable ſymptom, but on ſeveral; therefore we ſhould be guarded in giving an opinion.

If the pulſe, from being extremely feeble, ſhould acquire more ſtrength, and the heat, which was before conſiderably diminiſhed, becomes in general nearer the healthy ſtandard, together with an abatement of the violent vomiting and burning ſenſation in the region of the ſtomach and præcordia, the brain leſs confuſed,* with a diminution of reſtleſſneſs and ceſſation of ſighing, gradual diſappearance of petechiæ, with an enlargement in and about the parotid glands, diſfiguring much the natural form of the viſage, occurring particularly in children, ſometimes in adults, the tongue becoming cleaner from the middle and point, towards the edges, the patient capable of lying in any poſition with tolerable facility, with incipient formation of abſceſſes in different parts of the body, and a ſlight return of appetite, although the ſkin and eyes be of a deep yellow colour, we may prognoſticate with ſome degree of certainty, that the event will be favourable.

In the laſt ſtage: This may be conſidered as only a deeper ſhade in the ſymptoms of the latter part of the ſecond, with the addition of others, but replete with danger.

Nevertheleſs, with all the diſagreeable ſymptoms of ſighing, yel-

* If the patients became maniacal, the diſeaſe generally diſappeared, and they frequently recovered.

lowneſs of the ſkin, delirium, black vomiting, livid ulcers in the mouth, ſphacelation of bliſtered parts, bleedings from the noſe and mouth, black tongue, and almoſt every other ſymptom that this ſtage can produce, excepting a remarkable feeble and intermitting pulſe, I have ſeen ſeveral patients perfectly recover. The change generally took place for the better on the ninth or tenth day, on which the pulſe became more full, ſtrong and even, intellects leſs confuſed, tongue more florid from the middle towards the edges, heat general, and more equally diffuſed, ceſſation of vomiting and hæmorrhagies, bowels more regular, with a ſlight return of appetite, and beginning abſorption of the yellowneſs and petechiæ, with a capability in the patient of lying in any poſition, with increaſing ſtrength and complete recovery. Theſe inſtances were very rare, though few will deny their occurrence.

REGIMEN.——The patient ſhould abſtain from animal food; and when any thing is required, it ſhould be gruel, panada, &c. He ſhould uſe cool diluting drinks, ſuch as barley-water, apple-water, with ſmall quantities of ripe fruits, which tend to keep the bowels open. The chamber of the ſick ſhould be ſpacious and airy, kept cool, and frequently ſprinkled with vinegar. Great attention ſhould be paid to theſe circumſtances, as they are of infinite importance to thoſe who frequent the apartments of the ſick, and are highly conducive to the cure of the diſeaſe.

MEDICINE.——In the cure of the malignant fever, it appeared neceſſary; firſt, to moderate the inflammatory action: ſecondly, to remove or alleviate certain diſtreſſing ſymptoms which generally occurred, more or leſs, through the ſeveral ſtages of the diſeaſe: thirdly, to ſupport the tone and vigour of the ſyſtem.

The inflammatory action was moſt effectually moderated by the different claſſes of evacuants; among the moſt efficacious was bleeding in the arm.

About the tenth of Auguſt, 1793, which was ſhortly after the diſeaſe made its appearance in Philadelphia, bleeding was not attended with ſucceſs, at leaſt among the ſick under my care; therefore, the practice was diſcontinued; and I truſted, with moſt of my medical brethren, to the milder claſs of evacuants, until the 12th of September. Having found, on diſſection, the ſtomach and inteſtines highly inflamed, I reſumed the practice of bleeding upon good grounds, and with evidently better effect. The quantity of blood to be taken away was regulated by the violence of the ſymptoms, age, ſex, and habit of body; for thoſe who were very corpulent did not bear evacuations near ſo well as thoſe of a ſpare make. No certain rule can be laid down, with reſpect to the quantity of blood to be taken. The attempt muſt be ſubject to conſiderable error; yet the number of ounces to be abſtracted has been dictated by ſome authors. Dr. Williams, of Jamaica, who wrote in 1750, adviſed plentiful bleeding. Dr. Hillary, of Barbadoes, bled once or twice during the firſt days of the diſ-

caſe*. Dr. Moſely informs us, that bleeding ſhould be performed and repeated every ſix or eight hours, and if the ſymptoms be obſtinate and do not abate, it ſhould be executed even to fainting†. Dr. Blane obſerves, that if the patient had not a throbbing pulſe, with violent pain in the head and back, it ſhould not be performed; and that without the preſence of thoſe ſymptoms it was extremely dangerous. Dr. Warren, who had paſſed a conſiderable time in Barbadoes, ſeems much averſe to bleeding in any ſtage of this diſeaſe. Such are the different opinions of the tropical writers on this ſubject. But during the prevalence of the malignant fever in Philadelphia, which nearly reſembled that deſcribed under the appellation of the putrid bilious fever of the Weſt-India iſlands, I was influenced in the abſtraction of blood, by the tenſion and fulneſs of the pulſe, the ſeaſon of the year, and other circumſtances previouſly obſerved, together with the abatement which the ſick experienced of the ſymptoms during the flowing of the blood. But it was very ſeldom that one bleeding, however profuſe it may have been, would put an end to this diſeaſe; although the pains in the head and back were greatly mitigated. Yet they too often returned with additional violence. At this time, if the pulſe continued full and tolerably tenſe, and the ſtrength not much impaired, a ſufficient quantity of blood may be taken away to procure an alleviation of the ſymptoms. This ſhould be repeated as often as they recur in the inflammatory ſtage of the diſeaſe; but it ſeldom appeared neceſſary to be done later than the end of the third day. When it was employed at a more advanced period, particularly near the time when the diſeaſe was paſſing into its ſecond ſtage, it invariably increaſed the train of terrible ſymptoms which mark this period, with a ſinking in the pulſe that no human effort was able to ſupport. The blood drawn in this ſtage of the diſeaſe, very ſeldom perfectly ſeparated into the watery and groſſer parts. When it did, the former was of a natural colour, though ſmall in quantity in proportion to the latter. The thicker part was generally of a florid arterial colour, tender in the courſe of the warm weather. As the cool weather advanced, and the diſeaſe became more inflammatory, it was ſizy in ſome caſes, with a proportionable degree of contraction of its ſuperior circumference, exhibiting a cup-like appearance. Sometimes, during the warm weather, there was a thick tender ſizy coat on its upper ſurface, without this cup-like appearance. When blood was drawn during the yellow ſuffuſion of the ſkin, the thinner part was of a correſponding colour, yet not in the leaſt bitter to the taſte, that could be obſerved in a variety of inſtances; and was, like healthy ſerum, affected by heat and acids. To return to the cure: At the ſame time that great attention was paid to bloodletting, other remedies were not neglected. Whatever contri-

* Hillary's Obſervations, page 157. † Moſely, page 479.

buted to diminish the quantity of fluids in the system, and carried off the redundant matter in the first passages, was proportionably efficacious in diminishing the inflammatory action. Purges, and other evacuants, were employed, as being secondarily the most powerful remedies, particularly when alternated with bleeding, which appeared to be the most judicious way of using them.—Those preferred were such, on whose powerful action, reliance could be had, and when the stomach was sick, required but a small quantity to answer the purpose, at the same time being agreeable to the palate. Calomel possesses most of those properties, and under certain circumstances, could be administered with the greatest advantage. It should be given in large doses until it has the desired effect, and might be expedited in its operation by giving laxative clysters. When the functions of the stomach were not much deranged, which was sometimes the case, the saline purgatives were made use of, such as Glauber salt, which were powerful, less stimulating than the calomel, and of course, better antiphlogistics. These answered the purpose equally well, as the object was merely to reduce the energy of the system and carry off the bilious matter.

To relieve the violent pain in the head, blisters were employed, after general evacuation had been used as far as appeared advisable; but previous to their application to the neck, blood was drawn by the part to be blistered. This mode of practice generally afforded considerable relief.

Having taken notice of remedies suitable to the first indication, I come now to the second, viz. to alleviate or remove certain distressing symptoms; such as violent vomiting, costiveness, flatulency, great restlessness and want of sleep, and also to the means used to divert the despondency of the patient.

To moderate the excessive vomiting, often baffled every practitioner. Various means were employed to effect it; which may be divided into external and internal. Among the former, was blistering the different parts of the body, particularly the region of the stomach. From repeated trials, it seemed to have but little influence on the latter. Blisters have been recommended to be applied to the legs by Dr. Hume, of Jamaica, from which he experienced very good effects. This practice appeared here only to torture the patient's feelings, without the least abatement of the vomiting. Warm bathing was employed in this stage of the disease, sometimes with a mitigation of the vomiting; yet frequently it increased the sickness at the stomach, and produced fainting. Flannels wrung out of a warm and strong infusion of aromatics, applied constantly to the region of the stomach, were sometimes serviceable; but external applications seldom promised much advantage.

With respect to internal remedies, almost every anti-emetic was employed, that the experience of physicians had found useful, but

frequently without having the defired effect; fuch as the faline mixture in the ftate of efferveſcence; the infuſion of columbo root, cinnamon water-with liquid laudanum; the peppermint julep with laudanum, as alſo barley-water, toaſt-water, apple-water, lemonade, camomile tea, and a variety of other drinks during the inflammatory period. After theſe, ſmall doſes of tincture of Peruvian bark, with ſpirit of lavender-compound, were adminiſtered with a good effect, particularly when the ſymptoms of violent inflammation of the ſtomach did not contra-indicate its uſe. It was eſpecially ſerviceable to ſuch patients who had been accuſtomed to an irregular mode of life, and drank to exceſs of ſpirituous liquors; for, when every other article was immediately rejected, it generally continued on the ſtomach. The mucilaginous vitriolic mixture* was uſed to advantage, and ſmall quantities of wine, porter, cyder, or brandy and water, was of ſervice, by giving tone to the debilitated ſtomach.

Freſh buttermilk was frequently found grateful to the ſick, and very beneficial as an anti-emetic, even when from the ſymptoms, it might be concluded, that the ſtomach was highly inflamed. Likewiſe, a tea-ſpoonful of cream-tartar, diſſolved in ſugar and water, was known to ſtay on the ſtomach and paſs through the bowels, when every other medicine and drink was inſtantly rejected. This medicine was adminiſtered with a view to remove coſtiveneſs, which ſhould always be guarded againſt in this diſeaſe; but the patient finding it ſo effectual in ſtopping vomiting, he frequently had recourſe to it without being coſtive, with the ſame good effect. In ſeveral other caſes it was made uſe of, but was too often inſtantly rejected. Caſtor-oil, adminiſtered under ſimilar circumſtances, had the like effect; but this was not often the caſe, although I have frequently known it to continue on the ſtomachs of people violently ſea-ſick, and remove coſtiveneſs, when drink of every kind was immediately thrown up. During exceſſive ſickneſs at the ſtomach, the moſt agreeable medicine and drinks were leſs frequently rejected than thoſe of an unpleaſant quality. No ſooner did a draught of any liquid reach the ſtomach, than it was inſtantly rejected. It is not to be apprehended that this aroſe from the quality, but rather from the quantity. On this account, the patient ſhould not take more than a table-ſpoonful at a time. His own feeling, with reſpect to fulneſs and ſickneſs at the ſtomach, ſhould determine the frequency and quantity of drink, however inſatiably thirſty he may be. In conjunction with theſe preeautions, the body ſhould be kept as quiet as poſſible; for the leaſt accelerated motion of it, frequently brought on a fit of vomiting.

Coſtiveneſs and flatulency were extremely diſtreſſing in this diſeaſe. To remove them was always very difficult, particularly when there was much ſickneſs at the ſtomach, with vomiting; for

* Which is mucilage of gum-arabic, acidulated with elixir of vitriol.

the inteſtines were frequently very ſluggiſh in their action, and the ſtomach generally rejected every claſs of purgative medicines. When this was the caſe, there was no alternative but that of keeping the bowels open by clyſters. Theſe were ſubject to conſiderable inconvenience, when they could be adminiſtered; but this was not often the caſe. They frequently cleared but the lower part of the inteſtines, whilſt thoſe approximating the ſtomach, were generally diſtended with fæces, and an inceſſant ſource of irritation to the ſtomach. Whenever, therefore, a chance of ſucceſs in the adminiſtration of purgative medicines occurred, they were always attempted. They generally cleared the whole tract of inteſtinal canal, and frequently procured a mitigation of the vomiting. If rejected, they were not frequently repeated, leſt they might exhauſt the ſtrength of the patient without contributing to his relief. Keeping the inteſtinal canal clear of fæces, in ſome meaſure, obviated flatulency. But in an advanced period of the diſeaſe, the ſtomach and inteſtines were ſo much debilitated, that they frequently had not energy ſufficient, when apparently clear of fæces, to expel the wind either upwards or downwards, but it continued, as it were, ſtationary, and tormented the patient. During this ſtate, when the ſtomach was tolerably tranquil, a ſtrong infuſion of fennel-ſeed was adminiſtered, mixed in a ſmall quantity of brandy, with advantage, particularly when alternated with ſome agreeable tonic, ſuch as the mucilaginous vitriolic mixture already recommended, if nothing contra-indicated its uſe, or a ſmall quantity of a ſtrong infuſion of ſpices. They ſometimes afforded relief; but thoſe ſymptoms too frequently baffled every attempt to remove them.

Another circumſtance was, the extreme reſtleſſneſs and want of ſleep. Generally, by quieting the former, the fatigue from the long wakefulneſs will frequently induce the latter. This indication was moſt effectually anſwered by opium. The propriety of employing it, has engaged the attention of many of the tropical writers. By one it is much approved of;* by another it is condemned during the inflammatory period, as being highly ſtimulating and acrid. The uſe of it, ſays one, muſt be attended with imminent danger†. In the ſubſequent ſtages, good effects have been experienced from the uſe of opium, particularly in the ſecond and laſt ſtages of the diſeaſe. In the former it induced ſleep, refreſhing the patient, and enabling him, in ſome meaſure, to reſiſt the extreme violence of the diſeaſe. In the latter, it afforded conſolation by lulling the inquietude, and ſmoothing the avenue to death.

To divert the gloomy thoughts of the patient, was attended with almoſt inſurmountable difficulties. However, it ſhould be always attempted by the moſt encouraging language and aſſurance of a complete recovery; for on this, the favourable termination of the diſeaſe much depends. The patient ſhould not be

* Hillary's Obſervations, page 160. † Dr. Moſely.

told that he has the yellow fever; for I have known a patient, in this diſeaſe, faint from an unguarded expreſſion, and afterwards die apparently from a ſlight attack. No art could perſuade him that his diſſolution was not approaching with haſty ſpeed. Therefore, great circumſpection ſhould be obſerved, and the patient encouraged with as much conſiſtency and boldneſs as poſſible. Moſt of the ſick that were ſlightly indiſpoſed, would ſeize the leaſt dubious expreſſion of the phyſician, reſpecting their recovery.

I come now to the third and laſt indication; which is, to ſupport the ſinking tone and periſhing vigour of the ſyſtem. This indication is applicable to the ſecond, but more particularly to the laſt ſtage of the diſeaſe. The latter, being an augmentation of the ſymptoms of the former, ſometimes much diverſified, requires more powerful remedies. Whenever a change was perceived in the ſyſtem, indicating that debility was commencing, the nature of the diſeaſe muſt be conſidered as materially different, conſequently requiring a particular mode of treatment. The patient ſhould not be reſtricted to a vegetable diet or watery drinks, eſpecially if there are no violent ſymptoms indicating inflammation of the ſtomach. Stimulants ſhould be employed both external and internal, ſuch as bliſters to different parts of the body, in order to excite the ſyſtem. The application, when deferred to a more advanced period, was rather of diſſervice; for the ſtrength of the patient was ſo far exhauſted, that the bliſtered parts ſoon became black and ſphacelated, ſometimes attended with profuſe hæmorrhagy. Their application was diſcontinued in the laſt ſtage of the diſeaſe. Waſhing the whole body in brandy and water, or when that could not be complied with, the face, breaſt and hands, always proved very refreſhing to the ſick; cold water thrown over the head and ſhoulders, morning and evening, frequently had a good effect, by giving vigour to the ſyſtem. It likewiſe invariably induced ſleep, with a gentle moiſture on the ſkin. In addition to the external ſtimulants already mentioned, muſtard poultices may be applied to the feet; and when there are no ſymptoms contra-indicating the uſe of internal remedies, ſuch as violent ſymptoms of inflammation in the ſtomach, they ſhould be adminiſtered; and one would imagine, from the declining vigour of the ſyſtem, that bark and wine would be uſeful.* The former of which, in ſome caſes, was ſerviceable, particularly when the functions of the ſtomach were not much deranged; but nauſea and vomiting were ſo invariably preſent, that in almoſt all caſes, in whatever manner or form it was adminiſtered, it always, at leaſt in my practice, proved detrimental†. This eſpecially hap-

* The intermittent and remittent fevers, mentioned in a note in the hiſtory of this diſeaſe, were cured by emetics and the bark; the latter continued very well on the ſtomach.

† Except to uſe it in ſmall doſes to quiet the perturbed ſtomach, given under the circumſtances formerly mentioned.

pened, when the bark was given by the mouth. It commonly deranged the ſtate of the ſtomach in ſuch a manner, that it was not ſuſceptible of retaining any other medicine or drink. When adminiſtered in the form of clyſters, mixed with London porter and laudanum, it did not ſeem to have any good effect. They generally produced a painful ſenſation over the whole abdomen. This was ſometimes the caſe, even when a common laxative clyſter was given, ſo that the patient could ſcarcely retain it a moment. During the time bark was employed, wine was given, beginning with claret or any other weak wine; but if there was great defect in the vigour of the ſyſtem, Madeira was ſoon found neceſſary. If wine could not be taken by the patient, brandy, diluted with water, porter, or cyder, was ſubſtituted. Theſe ſhould be increaſed in quantity, according to the ſtate of the ſtomach and degree of feebleneſs in the pulſe, at the ſame time the elixir of vitriol was employed as a tonic. The bark, the moſt powerful of all tonics, was found to diſagree with the ſtomach, and was therefore always omitted, except during the convaleſcent ſtate, and an entire dependence was placed in the medicine recommended, together with the wine or its ſubſtitute. Theſe ſhould be adminiſtered in large quantities, and continued, until the pulſe, from being ſmall and ſinking, became full, round, and tolerably ſtrong; the heat more equally diffuſed, the delirium abating, and the patient becoming more cheerful. Such were frequently the effects of thoſe ſtimulants; and even when the ſtrength appeared almoſt exhauſted, they would revive and keep up the ſpark of life, and ſometimes in the moſt deplorable caſes, reſtore perfect health and vigour.

Great caution ſhould be obſerved in the adminiſtration of wine. When the moſt urgent ſymptoms are mitigated, and ſome of them removed, the quantity may be gradually diminiſhed. Should the dangerous ſymptoms return, it may be augmented with caution. This practice was more expedient if the patient could take ſome nouriſhment that was light and agreeable, ſuch as panada, or gruel; or if there was a ſlight return of appetite, ſome preparation of animal food ſhould be given, ſuch as weak broth, and at times a few oyſters, if the ſtomach would bear them. Great caution was to be obſerved in making uſe of ſolid food. If any is adviſable, oyſters certainly are the moſt proper, as they are the moſt eaſy of digeſtion, and afford a ſufficient quantity of nouriſhment.

It is proper to take notice of the conduct to be obſerved by the patient during the convaleſcent ſtate. This was generally tedious. When the diſeaſe had been remedied by profuſe evacuations, the recovery was conſiderably protracted and precarious. The patient acquired ſtrength but ſlowly, and ſometimes had a tendency to aſcites. During recovery, patients ſhould be very circumſpect in their conduct, for fear of a relapſe of fever. They ſhould chooſe food moſt eaſy of digeſtion; eat moderately; and

take a dose of bark, two or three times a-day, to assist digestion, and invigorate the debilitated dropsy. A moderate quantity of wine may be allowed; gentle exercise should be conjoined, the bowels kept open, and the night-air avoided.

## CHAPTER XXIV.

### *Of the Small-Pox.*

THIS disease, which originally came from Arabia, is now become so general, that very few escape it at one time of life or another. It is a most contagious malady; and has for many years proved the scourge of Europe.

The small-pox generally appears towards the spring. They are frequent in summer, less so in autumn, and least of all in winter. Children are most liable to this disease; and those whose food is unwholesome, who want proper exercise, and abound with gross humours, run the greatest hazard from it.

This disease is distinguished into the distinct and confluent kind; the latter of which is always attended with danger. There are likewise other distinctions of the small-pox; as the crystalline, the bloody, &c.

CAUSES.——The small-pox is commonly caught by infection. Since the disease was first brought into Europe, the infection has never been wholly extinguished, nor have any proper methods, as far as I know, been taken for that purpose; so that now it has become in a manner constitutional. Children who have over-heated themselves by running, wrestling, &c. or adults after a debauch, are most apt to be seized with the small-pox.

SYMPTOMS.——This disease is so generally known, that a minute description of it is unnecessary. Children commonly look a little dull, seem listless and drowsy for a few days before the more violent symptoms of the small-pox appear. They are more inclined to drink than usual, have little appetite for solid food, complain of weariness, and, upon taking exercise, are apt to sweat. These are succeeded by slight fits of cold and heat in turns, which, as the time of the eruption approaches, become more violent, and are accompanied with pains of the head and loins, vomiting, &c. The pulse is quick, with a great heat of the skin, and restlessness. When the patient drops asleep, he wakes in a kind of horror, with a sudden start, which is a very common symptom of the approaching eruption; as are also convulsion-fits in very young children.

About the third or fourth day from the time of sickening, the small-pox generally begin to appear; sometimes they appear sooner, but that is no favourable symptom. At first they very nearly resemble flea-bites, and are soonest discovered on the face, arms, and breast.

The most favourable symptoms are a slow eruption, and an abate-

ment of the fever as ſoon as the puſtules appear. In the diſtinct kind of ſmall-pox, the puſtules ſeldom appear before the fourth day from the time of ſickening, and they generally keep coming out gradually for ſeveral days after. Puſtules which are diſtinct, with a florid red baſis, and which fill with thick purulent matter, firſt of a whitiſh, and afterwards of a yellowiſh colour, are the beſt.

A livid brown colour of the puſtules is an unfavourable ſymptom; as alſo when they are ſmall and flat, with black ſpecks in the middle. Puſtules which contain a thin watery ichor are very bad. A great number of pox on the face is always attended with danger. It is likewiſe a very bad ſign when they run into one another.

It is a moſt unfavourable ſymptom when petechiæ, or purple, brown or black ſpots are interſperſed among the puſtules. Theſe are ſigns of great danger. Bloody ſtools or urine, with a ſwelled belly, are bad ſymptoms; as is alſo a continual ſtrangury. Pale urine and a violent throbbing of the arteries of the neck are ſigns of an approaching delirium, or of convulſion-fits. When the face does not ſwell, or falls before the pox come to maturity, it is very unfavourable. If the face begins to fall about the eleventh or twelfth day, and, at the ſame time, the hands and feet begin to ſwell, the patient generally does well; but when theſe do not ſucceed to each other, there is danger. The tongue covered with a brown cruſt is an unfavourable ſymptom. Cold ſhivering fits coming on at the height of the diſeaſe are likewiſe unfavourable. Grinding of the teeth, when it proceeds from an affection of the nervous ſyſtem, is a bad ſign; but ſometimes it is occaſioned by worms, or a diſordered ſtomach.

REGIMEN.——When the firſt ſymptoms of the ſmall-pox appear, people are ready to be alarmed, and often fly to the uſe of medicine, to the great danger of the patient's life. I have known children to be bled, bliſtered and purged, during the fever which preceded the eruption of the ſmall-pox, to ſuch a degree, that Nature was not only diſturbed in her operation, but rendered unable to ſupport the puſtules after they were out; ſo that the patient, exhauſted by mere evacuations, ſunk under the diſeaſe.

When convulſions appear, they give a dreadful alarm. Immediately ſome noſtrum is applied, as if this were a primary diſeaſe; whereas it is only a ſymptom, and far from being an unfavourable one, of the approaching eruption. As the fits generally go off before the actual appearance of the ſmall-pox, it is attributed to the medicine, which by this means acquires a reputation without any merit*.

* Convulſion-fits are very alarming; but their effects are often ſalutary. They ſeem to be one of the means made uſe of by Nature, for breaking the force of a fever. I have always obſerved the fever abated, and ſometimes quite removed, after one or more convulſion-fits. This readily accounts for convulſions being a favourable ſymptom in the fever which precedes the eruption of the ſmall-pox, as every thing that mitigates this fever leſſens the eruption.

All that is, generally ſpeaking, neceſſary, during the eruptive fever, is to keep the patient cool and eaſy, allowing him to drink freely of ſome weak diluting liquors; as balm-tea, barley-water, clear whey, gruels, &c. He ſhould not be confined to bed, but ſhould ſit up as much as he is able, and ſhould have his feet and legs frequently bathed in lukewarm water. His food ought to be very light; and he ſhould be as little diſturbed with company as poſſible. Much miſchief is done at this period, by confining the patient too ſoon to his bed, and plying him with warm cordials or ſudorific medicines. Every thing that heats and inflames the blood, increaſes the fever, and puſhes out the puſtules prematurely. This has numberleſs ill effects. It not only increaſes the number of puſtules, but likewiſe tends to make them run into one another; and when they have been puſhed out with too great violence, they generally fall in before they come to maturity.

Women, as ſoon as they ſee the ſmall-pox begin to appear, commonly ply their tender charge with cordials, ſaffron, and marigold-teas, wine, punch, and even brandy itſelf. All theſe are given with a view, as they term it, to throw out the eruption from the heart. This, like moſt other popular miſtakes, is the abuſe of a very juſt obſervation, *that when there is a moiſture on the ſkin, the pox riſe better, and the patient is eaſier, than when it continues dry and parched.* But that is no reaſon for forcing the patient into a ſweat. Sweating never relieves unleſs where it comes ſpontaneouſly, or is the effect of drinking weak diluting liquors.

Children are often ſo peeviſh, that they will not lie a-bed without a nurſe conſtantly by them. Indulging them in this, has many bad effects both upon the nurſe and child. Even the natural heat of the nurſe augments the fever of the child; but if ſhe, too, proves feveriſh, which is often the caſe, the danger muſt be increaſed*.

Lying ſeveral children, who have the ſmall-pox, in the ſame bed, has many ill conſequences. They ought, if poſſible, never to be in the ſame chamber, as the perſpiration, the heat, the ſmell, &c. all tend to augument the fever, and to heighten the diſeaſe. It is common among the poor, to ſee two or three children lying in the ſame bed, with ſuch a load of puſtules, that even their ſkins ſtick together. One can hardly view a ſcene of this kind, without being ſickened by the ſight. But how muſt the effluvia affect the poor patients, many of whom periſhed by this uſage†?

* I have known a nurſe, who had the ſmall-pox before, ſo infected by lying conſtantly a-bed with a child, in a bad kind of ſmall-pox, that ſhe had not only a great number of puſtules, which broke out all over her body, but afterwards a malignant fever, which terminated in a number of impoſthumes or boils, and from which ſhe narrowly eſcaped with her life. We mention this, to put others upon their guard againſt the danger of this virulent infection.

† This obſervation is likewiſe applicable to hoſpitals, work-houſes, &c. where numbers of children happen to have the ſmall-pox at the ſame time. I have ſeen above forty children cooped up in one apartment,

A very dirty cuſtom prevails among the lower claſs of people, of allowing children in the ſmall-pox to keep on the ſame linen during the whole period of that loathſome diſeaſe. This is done, leſt they ſhould catch cold; but it has many ill conſequences. The linen becomes hard by the moiſture which it abſorbs, and frets the tender ſkin. It occaſions a bad ſmell, which is very pernicious both to the patient and thoſe about him; beſides, the filth and ſordes, which adhere to the linen, being reſorbed, or taken up again into the body, greatly augment the diſeaſe.

A patient ſhould not be ſuffered to be dirty in an internal diſeaſe, far leſs in the ſmall-pox. Cutaneous diſorders are often occaſioned by naſtineſs alone, and are always increaſed by it. Were the patient's linen to be changed every day, it would greatly refreſh him. Care, indeed, is to be taken, that the linen be thoroughly dry. It ought likewiſe to be put on when the patient is moſt cool.

So ſtrong is the vulgar prejudice in this country, notwithſtanding all that has been ſaid againſt the hot regimen in the ſmall-pox, that numbers ſtill fall a ſacrifice to that error. I have ſeen poor women travelling in the depth of winter, and carrying their children along with them in the ſmall-pox, and have frequently obſerved others begging by the way-ſide, with infants in their arms covered with the puſtules; yet I could never learn that one of theſe children died by this ſort of treatment. This is certainly a ſufficient proof of the ſafety, at leaſt, of expoſing patients in the ſmall-pox to the open air. There can be no reaſon, however, for expoſing them to public view. It is now very common in the environs of great towns to meet patients in the ſmall-pox on the public walks. This practice may ſuit the purpoſes of boaſting inoculators, but is dangerous to the citizens, and contrary to the laws of humanity and ſound policy.

The food in this diſeaſe ought to be very light, and of a cooling nature, as panado, or bread boiled with equal quantities of milk and water, good apples roaſted or boiled with milk and ſweetened with a little ſugar, or ſuch-like. The drink may be equal parts of milk and water, clear ſweet whey, barley-water, or thin gruel, &c. After the pox are full, butter-milk, being of an opening and cleanſing nature, is a very proper drink.

MEDICINE.——This diſeaſe is generally divided into four different periods, *viz.* the fever which precedes the eruption, the eruption itſelf, the ſuppuration, or maturation of the puſtules, and the ſecondary fever.

Little more is neceſſary, during the primary fever, than to keep

all the while they had this diſeaſe, without any of them being admitted to breathe the freſh air. No one can be at a loſs to ſee the impropriety of ſuch conduct. It ought to be a rule, not only in hoſpitals for the ſmall-pox, but, likewiſe, for other diſeaſes, that no patient ſhould be within ſight or hearing of another. This is a matter to which too little regard is paid. In moſt hoſpitals and infirmaries, the ſick, the dying, and the dead, are often to be ſeen in the ſame apartment.

the patient cool and quiet, allowing him to drink diluting liquors, and bathing his feet frequently in warm water. Though this be generally the safeſt courſe that can be taken with infants, yet adults of a ſtrong conſtitution and plethoric habit ſometimes require bleeding. When a full pulſe, a dry ſkin, and other ſymptoms of inflammation render this operation neceſſary, it ought to be performed; but, unleſs theſe ſymptoms are urgent, it is ſafer to let it alone; if the body is bound, emollient clyſters may be thrown in.

If there is a great nauſea, or inclination to vomit, weak camomile-tea, or lukewarm water may be drank, in order to clean the ſtomach. At the beginning of a fever, Nature generally attempts a diſcharge, either upwards or downwards, which, if promoted by gentle means, would tend greatly to abate the violence of the diſeaſe.

Though every method is to be taken during the primary fever, by a cool regimen, &c. to prevent too great an eruption; yet, after the puſtules have made their appearance, our buſineſs is to promote the ſuppuration, by diluting drink, light food, and, if Nature ſeems to flag, by generous cordials. When a low, creeping pulſe faintiſhneſs, and great loſs of ſtrength, render cordials neceſſary, we would recommend good wine, which may be made into negus, with an equal quantity of water, and ſharpened with the juice of orange, the jelly of currants, or the like. Wine-whey, ſharpened as above, is likewiſe a proper drink in this caſe; great care, however, muſt be taken not to overheat the patient by any of theſe things. This, inſtead of promoting, would retard the eruption.

The riſing of the ſmall-pox is often prevented by the violence of the fever. In this caſe, the cool regimen is ſtrictly to be obſerved. The patient's chamber muſt not only be kept cool, but he ought frequently to be taken out of bed, and to be lightly covered with clothes while in it.

Exceſſive reſtleſſneſs often prevents the riſing and filling of the ſmall-pox. When this happens, gentle opiates are neceſſary. Theſe ought always to be adminiſtered with a ſparing hand. To an infant, a tea-ſpoonful of the ſyrup of poppies may be given every five or ſix hours till it has the deſired effect. An adult will require a table-ſpoonful to anſwer the ſame purpoſe.

If the patient be troubled with a ſtrangury, or ſuppreſſion of urine, which often happens in the ſmall-pox, he ſhould be frequently taken out of bed, and, if he be able, ſhould walk acroſs the room with his feet bare. When he cannot do this, he may be frequently ſet on his knees in bed, and ſhould endeavour to paſs his urine as often as he can. When theſe do not ſucceed, a tea-ſpoonful of the ſweet ſpirits of nitre may be occaſionally mixed with his drink. Nothing more certainly relieves the patient, or is more beneficial in the ſmall-pox, than a plentiful diſcharge of urine.

If the mouth be foul, and the tongue dry and chopped, it ought to be frequently waſhed, and the throat gargled with water and honey, ſharpened with a little vinegar or currant-jelly.

During the riſing of the ſmall-pox, it frequently happens, that the patient is eight or ten days without a ſtool. This not only tends to heat and inflame the blood, but the fæces, by lodging ſo long in the body, become acrid, and even putrid. From whence bad conſequences muſt unſue. It will, therefore, be proper, when the body is bound, to throw in an emollient clyſter every ſecond or third day, through the whole courſe of the diſeaſe. This will greatly cool and relieve the patient.

When petechiæ, or purple, black, or livid ſpots appear among the ſmall-pox, the bark muſt immediately be adminiſtered in as large doſes as the patient's ſtomach can bear. For a child, two drachms of the bark in powder may be mixed in three ounces of common water, one ounce of ſimple cinnamon-water, and two ounces of the ſyrup of orange or lemon. This may be ſharpened with the ſpirits of vitriol, and a table-ſpoonful of it given every hour. If it be given to an adult in the ſame form, he may take at leaſt three or four ſpoonfuls every hour. This medicine ought not to be trifled with, but muſt be adminiſtered as frequently as the ſtomach can bear it; in which caſe, it will often produce very happy effects. I have frequently ſeen the petechiæ diſappear, and ſmall-pox, which had a very threatening aſpect, riſe and fill with laudable matter, by the uſe of the bark and acids.

The patient's drink ought, in this caſe, to be generous; as wine or ſtrong negus acidulated with ſpirits of vitriol, vinegar, the juice of lemon, jelly of currants, or ſuch-like. His food muſt conſiſt of apples roaſted or boiled, preſerved cherries, plumbs, and other fruits of an acid nature.

The bark and acids are not only neceſſary when the petechiæ appear, but likewiſe in the lymphatic or cryſtalline ſmall-pox, where the matter is thin, and not duly prepared. The Peruvian bark ſeems to poſſeſs a ſingular power of aſſiſting Nature in preparing good matter; conſequently, it muſt be beneficial both in this and other diſeaſes, where the criſis depends on a ſuppuration. I have often obſerved, where the ſmall-pox were flat, and the matter contained in them quite clear and tranſparent, and where, at firſt, they had the appearance of running into one another, that the bark, acidulated as above, changed the colour and conſiſtence of the matter, and produced the moſt happy effects.

When the eruption ſubſides ſuddenly, or when the ſmall-pox *ſtrike in*, before they have arrived at maturity, the danger is very great. In this caſe, bliſters muſt be immediately applied to the wriſts and ancles, and the patient's ſpirits ſupported with cordials.

Sometimes bleeding has a ſurpriſing effect in raiſing the puſtules after they have ſubſided; but it requires ſkill to know when this is proper, or to what length the patient can bear it. Sharp cataplaſms, however, may be applied to the feet and hands, as they tend to promote the ſwelling of theſe parts.

The moſt dangerous period of this diſeaſe, is what we call the

fecondary fever. This generally comes on when the fmall-pox begin to blacken, or turn on the face; and moft of thofe who die of the fmall-pox, are carried off by this fever.

Nature generally attempts, at the turn of the fmall-pox, to relieve the patient by loofe ftools. Her endeavours, this way, are by no means to be counteracted, but promoted, and the patient, at the fame time, fupported by food and drink of a nourifhing and cordial nature.

If, at the approach of the fecondary fever, the pulfe be very quick, hard and ftrong, the heat intenfe, and the breathing laborious, with other fymptoms of an inflammation of the breaft, the patient muft immediately be bled. The quantity of blood to be let, muft be regulated by the patient's ftrength, age, and the urgency of the fymptoms.

But, in the fecondary fever, if the patient be faintifh, the puftules become fuddenly pale, and if there be great coldnefs of the extremities, blifters muft be applied, and the patient muft be fupported with generous cordials. Wine, and even fpirits, have fometimes been given, in fuch cafes, with amazing fuccefs.

As the fecondary fever is, in great meafure, if not wholly, owing to the abforption of the matter, it would feem highly confonant to reafon, that the puftules, as foon as they come to maturity, fhould be opened. This is every day practifed in other phlegmons which tend to fuppuration; and there feems to be no caufe why it fhould be lefs proper here. On the contrary, we have reafon to believe, that, by this means, the fecondary fever might always be leffened, and often wholly prevented.

The puftules fhould be opened when they begin to turn of a yellow colour. Very little art is neceffary for this operation. They may either be opened with a lancet or a needle, and the matter abforbed by a little dry lint. As the puftules are generally firft ripe on the face, it will be proper to begin with opening thefe, and the others in courfe as they become ripe. The puftules generally fill again, a fecond or even a third time; for which caufe, the operation muft be repeated, or rather continued as long as there is any confiderable appearance of matter in the puftules.

This operation, rational as it is, has been neglected from a piece of miftaken tendernefs in parents. They believe that it muft give great pain to the poor child; and, therefore, would rather fee it die than have it thus tortured. This notion is entirely without foundation. I have frequently opened the puftules, when the patient did not fee me, without his being in the leaft fenfible of it; but, fuppofe it where attended with a little pain, that is nothing is comparifon to the advantages which arife from it.

Opening the puftules not only prevents the reforption of the matter into the blood, but likewife takes off the tenfion of the fkin, and, by that means, greatly relieves the patient. It likewife tends to prevent the pitting, which is a matter of no fmall importance.

Acrid matter, by lodging long in the puſtules, cannot fail to corrode the tender ſkin; by which, many a handſome face becomes ſo deformed as hardly to bear a reſemblance to the human figure*.

It is generally neceſſary, after the ſmall-pox are gone off, to purge the patient. If, however, the body has been open through the whole courſe of the diſeaſe, or if butter-milk and other things of an opening nature have been drank freely after the height of the ſmall-pox, purging becomes leſs neceſſary; but it ought never wholly to be neglected.

For very young children, an infuſion of ſenna and prunes, with a little rhubarb, may be ſweetened with coarſe ſugar, and given in ſmall quantities till it operates. Thoſe who are farther advanced, muſt take medicines of a ſharper nature. For example; a child of five or ſix years of age may take eight or ten grains of jalap over night, and the ſame quantity of jalap in powder next morning. This may be wrought off with freſh broth or water-gruel, and may be repeated three or four times, five or ſix days intervening between each doſe. For children further advanced, and adults, the doſe muſt be increaſed in proportion to the age and conſtitution†.

When impoſthumes happen after the ſmall-pox, which is not ſeldom the caſe, they muſt be brought to ſuppuration as ſoon as poſſible, by means of emollient poultices; and when they have been opened, or have broke of their own accord, the patient muſt be purged. The bark and a milk-diet will be uſeful in this caſe.

When a cough, a difficulty of breathing, or other ſymptoms of a conſumption, ſucceed to the ſmall-pox, the patient muſt be ſent to a place where the air is good, and put upon a courſe of aſſes' milk, with ſuch exerciſe as he can bear. For further directions in this caſe, ſee the article *Conſumptions*.

## *Of Inoculation.*

THOUGH no diſeaſe, after it is formed, baffles the powers of medicine more effectually than the ſmall-pox, yet more may be done before-hand, to render this diſeaſe favourable, than any one we know; as almoſt all the danger from it may be prevented by inoculation. This ſalutary invention has been known in Europe above

* Though this operation can never do harm, yet it is only neceſſary when the patient has a great load of ſmall-pox, or when the matter which they contain is of ſo thin and acrid a nature, that there is reaſon to apprehend bad conſequences from its being too quickly reforbed, or taken up again into the maſs of circulating humours.

† I have of late been accuſtomed, after the ſmall-pox, to give one, two, three, four, or five grains of calomel, according to the age of the patient, over night, and to work it off next morning with a ſuitable doſe of jalap.

half a century; but, like moſt other uſeful diſcoveries, it has till of late made but ſlow progreſs. To the honour of this country, inoculation has met with a more favourable reception here, than among any of our neighbours. It is ſtill, however, far from being general, which we have reaſon to fear will be the caſe, as long as the practice continues in the hands of the faculty.

No diſcovery can be of general utility, while the practice of it is kept in the hands of a few. Had the inoculation of the ſmall-pox been introduced as a faſhion, and not as a medical diſcovery, or had it been practiſed by the ſame kind of operators here, as it is in thoſe countries from whence we learned it, it had long ago been univerſal. The fears, jealouſies, prejudices, and oppoſite intereſts of the faculty, are, and ever will be, the moſt effectual obſtacles to the progreſs of any ſalutary diſcovery. Hence, inoculation never became, in any meaſure, general, even in England, till taken up by men not bred to phyſic. Theſe have not only rendered the practice more extenſive, but more ſafe, and by acting under leſs reſtraint than regular practitioners, have taught them that the patient's greateſt danger aroſe, not from the want of care, but the exceſs of it.

They know very little of the matter, who impute the ſucceſs of modern inoculators to any ſuperior ſkill, either in preparing the patient or communicating the diſeaſe. Some of them, indeed, from a ſordid deſire of engroſſing the whole practice to themſelves, pretend to have extraordinary ſecrets or noſtrums for preparing perſons for inoculation, which never fail of ſucceſs. But this is only a pretence to blind the ignorant. Common ſenſe and prudence alone are ſufficient both in the choice of the ſubject and management of the operation. Whoever is poſſeſſed of theſe, may perform this office for his children, whenever he finds it convenient, if they be in a good ſtate of health.

This ſentiment is not the reſult of theory, but of obſervation. Though few phyſicians have had more opportunities of trying inoculation in all its different forms, ſo little appears to me to depend on thoſe, generally reckoned important circumſtances, of preparing the body, communicating the infection by this or the other method, &c. that, for ſeveral years paſt, I have perſuaded the parents or nurſes, to perform the whole themſelves, and have found that method followed with equal ſucceſs, while it is free from any inconveniences that attend the other.*

* A critical ſituation, too often to be met with, firſt put me upon trying this method. A gentleman who had loſt all his children, except one ſon, by the natural ſmall-pox, was determined to have him inoculated. He told me his intention, and deſired I would perſuade the mother and grandmother, &c. of its propriety. But that was impoſſible. They were not to be perſuaded; and either could not get the better of their fears, or were determined againſt conviction. It was always a point with me, not to perform the operation without the conſent of the parties concerned. I therefore adviſed the father, after giving his ſon a doſe or two of rhubarb, to go to a patient who had the ſmall-pox of a good kind,

The ſmall-pox may be communicated in a great variety of ways, with nearly the ſame degree of ſafety and ſucceſs. In Turkey, from whence we learned the practice, the women communicate the diſeaſe to children, by opening a bit of the ſkin with a needle, and putting into the wound a little matter taken from a ripe poſtule. On the coaſt of Barbary, they puſs a thread wet with the matter through the ſkin, between the thumb and fore-finger; and, in ſome of the ſtates of Barbary, inoculation is performed by rubbing in the variolous matter between the thumb and fore-finger, or on other parts of the body. Rubbing the variolous matter upon the ſkin, has been long known in many parts of Aſia and Europe, as well as in Barbary, and has generally gone by the name of *buying the ſmall-pox*.

The preſent method of inoculating in Britain,* is to make two or three ſlanting inciſions in the arm, ſo ſuperficial as not to pierce quite through the ſkin, with a lancet wet with freſh matter taken from a ripe puſtule; afterwards, the wounds are cloſed up, and left without any dreſſing. Some make uſe of a lancet covered with the dry matter; but this is leſs certain, and ought never to be uſed unleſs where freſh matter cannot be obtained: when this is the caſe, the matter ought to be moiſtened by holding the lancet for ſome time in the ſteam of warm water.

Indeed, if freſh matter be applied long enough to the ſkin, there is no occaſion for any wound at all. Let a bit of thread, about half an inch long, wet with the matter, be applied to the arm, mid-way between the ſhoulder and elbow, covered with a piece of common ſticking plaiſter, and kept on for eight or ten days. This will ſeldom fail to communicate the diſeaſe. We mention this method, becauſe many people are afraid of a wound; and, doubtleſs, the more eaſily the operation can be performed, it has the greater chance to become general. Some imagine, that the diſcharge from a wound leſſens the eruption; but there is no great ſtreſs to be laid upon this notion; beſides, deep wounds often ulcerate, and become troubleſome.

We do not find that inoculation is conſidered as a medical operation in thoſe countries from whence we learned it. In Turkey, it is performed by the women, and, in the Eaſt-Indies, by the

to open two or three of the puſtules, taking up the matter with a little cotton, and, as ſoon as he came home, to take his ſon apart, and give his arm a ſlight ſcratch with a pin, afterwards to rub the place well with the cotton, and take no farther notice of it. All this he punctually performed; and, at the uſual period, the ſmall-pox made their appearance, which were of an exceeding good kind, and ſo mild, as not to confine the boy an hour to his bed. None of the other relations knew but the diſeaſe had come in the natural way, till the boy was well.

* The method practiſed in America, differs only in the number of inciſions: we find, that the matter inſerted by one, is generally ſufficient to produce the deſired effect, without the trouble and inconvenience of three. (I. C.)

Brachmins. In this country, the cuſtom is ſtill in its infancy; we make no doubt, but it will ſoon become ſo familiar, that parents will think no more of inoculating their children, than at preſent they do of giving them a purge.

No ſet of men have it ſo much in their power to render the practice of inoculation general, as the clergy, the greateſt oppoſition to it ſtill ariſing from ſome ſcruples of conſcience, which they alone can remove. I would recommend it to them not only to endeavour to remove the religious objections which weak minds may have to this ſalutary practice, but to enjoin it as a duty, and to point out the danger of neglecting to make uſe of a mean which Providence has put in our power for ſaving the lives of our offſpring. Surely, ſuch parents as wilfully neglect the means of ſaving their children's lives, are as guilty as thoſe who put them to death. I wiſh this matter were duly weighed. No one is more ready to make allowance for human weakneſs and religious prejudices; yet I cannot help recommending it, in the warmeſt manner, to parents, to conſider how great an injury they do their children, by neglecting to give them this diſeaſe in the early period of life.

The numerous advantages ariſing from the inoculation of the ſmall-pox, have been pretty fully pointed out by the learned Dr. M'Kenzie, in his Hiſtory of Health.* To thoſe mentioned by

* "Many and great," ſays this humane author, "are the dangers attending the natural infection, from all which the innoculation is quite ſecure. The natural infection may invade weak or diſtempered bodies, by no means diſpoſed for its kindly reception. It may attack them at a ſeaſon of the year either violently hot or intenſely cold It may be communicated from a ſort of ſmall-pox impregnated with the utmoſt virulence. It may lay hold of people unexpectedly, when a dangerous ſort is imprudently imported into a maritime place. It may ſurpriſe us ſoon after exceſſes committed in luxury, intemperance, or lewdneſs. It may likewiſe ſeize on the innocent after indiſpenſible watchings, hard labour, or neceſſary journies. And is it a trivial advantage, that all theſe unhappy circumſtances can be prevented by inoculation? By inoculation, numbers are ſaved from deformity as well as from death. In the natural ſmall-pox, how often are the fineſt features, and the moſt beautiful complexions miſerably diſfigured? Whereas, inoculation rarely leaves any ugly marks or ſcars, even where the number of puſtules on the face has been very conſiderable, and the ſymptoms by no means favourable. And many other grievous complaints, that are frequently ſubſequent to the natural ſort, ſeldom follow the artificial. Does not inoculation alſo prevent thoſe inexpreſſible terrors, that perpetually harraſs perſons who never had this diſeaſe, inſomuch, that when the ſmall-pox is epidemical, entire villages are depopulated, markets ruined, and the face of diſtreſs ſpread over the whole country? From this terror it ariſes, that juſtice is frequently poſtponed, or diſcouraged, at ſeſſions or aſſizes where the ſmall-pox rages. Witneſſes and juries dare not appear; and by reaſon of the neceſſary abſence of ſome gentlemen, our honourable and uſeful judges are not attended with that reverence and ſplendour due to their office and merit. Does not inoculation, in like manner, prevent our brave ſailors from being ſeized with this diſtemper on ſhipboard, where they muſt quickly ſpread the infection among ſuch

him, we ſhall only add, that ſuch as have not had the ſmall-pox in the early period of life, are not only rendered unhappy, but likewiſe, in a great meaſure, unfit for ſuſtaining many of the moſt uſeful and important ſtations. Few people would chooſe even to hire a ſervant who had not had the ſmall-pox, far leſs to purchaſe a ſlave who had the chance of d ing of this diſeaſe. How could a phyſician or a ſurgeon, who never had the ſmall-pox himſelf, attend others under that malady? How deplorable is the ſituation of females, who arrive at mature age without having had the ſmall-pox! A woman with-child ſeldom ſurvives this diſeaſe: and if an infant happen to be ſeized with the ſmall-pox upon the mother's breaſt, who has not had the diſeaſe herſelf, the ſcene muſt be diſtreſſing! If ſhe continue to ſuckle the child, it is at the peril of her own life; and if ſhe wean it, in all probability, it will periſh. How often is the affectionate mother forced to leave her houſe, and abandon her children, at the very time when her care is moſt neceſſary? Yet ſhould parental affection get the better of her fears, the conſequences would often prove fatal. I have known the mother and her infant laid in the ſame grave, both victims to this malady. Let parents who run-away with their children, to avoid the ſmall-pox, or who refuſe to inoculate them in infancy, conſider to what deplorable ſituations they may be reduced by this miſtaken tenderneſs!

As the ſmall-pox is now become an epidemical diſeaſe in moſt parts of the known world, no other choice remains, but to render the malady as mild as poſſible. This is the only manner of extirpation now left in our power; and though it may ſeem paradoxical, the artificial method of communicating the diſeaſe, could it be rendered univerſal, would amount to nearly the ſame thing as rooting it out. It is a matter of ſmall conſequence whether a diſeaſe be entirely extirpated, or rendered ſo mild as neither to deſtroy life nor hurt the conſtitution; but that this may be done by inoculation, does not now admit of a doubt. The numbers who die under inoculation hardly deſerve to be named. In the natural way, one in four or five generally dies; but by inoculation not one of a thouſand. Nay, ſome can boaſt of having inoculated ten thouſand without the loſs of a ſingle patient.

I have often wiſhed to ſee ſome plan eſtabliſhed for rendering this ſalutary practice univerſal. The difficulties are many; yet the thing is by no means impracticable. The aim is great; no leſs than ſaving the lives of one-fourth part of mankind. What

of the crew who never had it before, and where they have ſcarce any chance to eſcape, being half ſtifled with the cloſeneſs of their cabins, and but very indifferently nurſed? Laſtly, with regard to the ſoldiery, the miſeries attending theſe poor creatures, when attacked by the ſmall-pox on a march, are inconceivable—without attendance, without lodgings, without any accommodation; ſo that one of three commonly periſhes."

ought not to be attempted in order to accompliſh ſo deſirable an end?

The firſt ſtep towards rendering the practice univerſal, muſt be to remove the religious prejudices againſt it. This can only be done by the clergy. They muſt not only recommend it as a duty to others, but likewiſe practiſe it on their own children. Example will ever have more influence than precept.

The next thing requiſite is, to put it in the power of all. For this purpoſe, let the faculty inoculate the children of the poor *gratis*. It is hard that ſo uſeful a part of mankind ſhould, by their poverty, be excluded from ſuch a benefit.

Should this fail, it is ſurely in the power of any ſtate to render the practice general, at leaſt as far as their dominion extends. We do not mean that it ought to be enforced by a law. The beſt way to promote it, would be, to employ a ſufficient number of operators at the public expenſe, to inoculate the children of the poor. This would only be neceſſary till the practice became general; afterwards, cuſtom, the ſtrongeſt of all laws, would oblige every individual to inoculate his children to prevent reflections.

It may be objected to this ſcheme, that the poor would refuſe to employ the inoculators; this difficulty is eaſily removed. A ſmall premium to enable mothers to attend their children while under this diſeaſe, would be a ſufficient inducement; beſides, the ſucceſs attending the operation would ſoon baniſh all objections to it. Even conſiderations of profit would induce the poor to embrace this plan. They often bring up their children to the age of ten or twelve, and when they come to be uſeful, they are ſnatched away by this malady, to the great loſs of their parents, and detriment of the public.

The Britiſh legiſlature has, of late years, ſhown great attention to the preſervation of infant lives, by ſupporting the foundling hoſpital, &c. But if one-tenth part of the ſums laid out in ſupporting that inſtitution, had been beſtowed towards promoting inoculation of the ſmall-pox among the poor, not only more uſeful lives had been ſaved, but the practice ere now rendered quite univerſal in this iſland. It is not to be imagined, what effect example and a little money will have upon the poor; yet, if left to themſelves, they would go on for-ever in the old way, without thinking of any improvement. We only mean this as a hint to the humane and public-ſpirited: Should ſuch a ſcheme be approved, a proper plan might eaſily be laid down for the execution of it.

But as public plans are very difficult to bring about, and often, by the ſelfiſh views and miſconduct of thoſe intruſted with the execution of them, fail of anſwering the noble purpoſes for which they were deſigned; we ſhall point out ſome other method by which the benefits of inoculation may be extended to the poor. There is no doubt but inoculators will daily become more numerous. We would therefore have every pariſh in Britain to allow

one of them a ſmall annual ſalary for inoculating all the children of the pariſh at a proper age. This might be done at a very trifling expenſe, and it would enable every one to enjoy the benefit of this ſalutary invention.

Two things chiefly operate to prevent the progreſs of inoculation. The one is a wiſh to put the evil day as far off as poſſible. This is a principle in our nature; and as inoculation ſeems rather to be anticipating a future evil, mankind are averſe to it. But this objection is ſufficiently anſwered by the ſucceſs. Who in his ſenſes would not prefer a leſſer evil to-day, to a greater to-morrow, provided they were equally certain?

The other obſtacle is the fear of reflections. This has very great weight with the bulk of mankind. Should the child die, they think the world would blame them. This they cannot bear. Here lies the difficulty; and till that be removed, inoculation will make but ſmall progreſs. Nothing, however, can remove it but cuſtom. Make the practice faſhionable, and all objections will ſoon vaniſh. It is faſhion alone that has led the multitude ſince the beginning of the world, and will lead them to the end. We muſt, therefore, call upon the more enlightened part of mankind to ſet a pattern to the reſt. Their example, though it may for ſome time meet with oppoſition, will at length prevail.

I am aware of an objection to this practice from the expenſe with which it may be attended: this is eaſily obviated. We do not mean that every pariſh ought to employ a Sutton or a Dimſdale as inoculators. Theſe have by their ſucceſs already recommended themſelves to crowned heads, and are beyond the vulgar reach; but have not others an equal chance to ſucceed? They certainly have. Let them make the ſame trial, and the difficulties will ſoon vaniſh. There is not a pariſh, and hardly a village in Britain, deſtitute of ſome perſon who can bleed. But this is a far more difficult operation, and requires more ſkill and dexterity than inoculation.

The perſons to whom we would chiefly recommend the performance of this operation are the clergy. Moſt of them know ſomething of medicine. Almoſt all of them bleed, and can order a purge which are all the qualifications neceſſary for the practice of inoculation. The prieſts among the leſs enlightened Indians perform this office; and why ſhould a Chriſtian teacher think himſelf above it? Surely, the bodies of men, as well as their ſouls, merit a part of the paſtor's care; at leaſt the greateſt Teacher who ever appeared among men ſeems to have thought ſo.

Should all other methods fail, we would recommend it to parents to perform the operation themſelves. Let them take any method of communicating the diſeaſe they pleaſe; provided the ſubjects be healthy, and of a proper age, they will ſeldom fail to ſucceed to their wiſh. I have known many inſtances of mothers performing the operation, and never ſo much as heard of one bad conſequence. A planter, in one of the Weſt-India iſlands, is ſaid

to have inoculated, with his own hand, in one year, three hundred of his ſlaves; who, notwithſtanding the warmth of the climate, and other unfavourable circumſtances, all did well. Common mechanics have often, to my knowledge, performed the operation with as good ſucceſs as phyſicians. We do not mean to diſcourage thoſe who have it in their power, from employing people of ſkill to inoculate their children, and attend them while under the diſeaſe; but only to ſhow, that where ſuch cannot be had, the operation ought not upon that account to be neglected.

Inſtead of multiplying arguments to recommend this practice, I ſhall juſt beg leave to mention the method which I took with my own ſon, then an only child. After giving him two gentle purges, I ordered the nurſe to take a bit of thread, which had been previouſly wet with freſh matter from a pock, and to lay it upon his arm, covering it with a piece of ſticking-plaiſter. This remained on ſix or ſeven days, till it was rubbed off by accident. At the uſual time, the ſmall-pox made their appearance, and were exceedingly favourable. Surely, this, which is all that is generally neceſſary, may be done without any ſkill in medicine.

We have been the more full upon this ſubject, becauſe the benefits of inoculation cannot be extended to ſociety by any other means than making the practice general. While it is confined to a few, it muſt prove hurtful to the whole. By means of it, the contagion is ſpread, and is communicated to many who might otherwiſe never have had the diſeaſe. Accordingly, it is found, that more die of the ſmall-pox now, than before inoculation was introduced; and this important diſcovery, by which alone more lives might be ſaved than by all the endeavours of the faculty, is in a great meaſure loſt by its benefits not being extended to thewhole community.*

The ſpring and autumn have been uſually reckoned the moſt proper ſeaſons for inoculation, on account of the weather being then moſt temperate; but it ought to be conſidered that theſe are generally the moſt unhealthy ſeaſons of the whole year. Undoubtedly, the beſt preparation for the diſeaſe is a previous good ſtate of health. I have always obſerved, that children, in particular, are more ſickly towards the end of ſpring and autumn, than at any other time of the year. On this account, as well as for the advantage of cool air, I would propoſe winter as the moſt proper ſeaſon for inoculation; though, on every other conſideration, the ſpring would ſeem to be preferable.

The moſt proper age for inoculation is between three and five. Many approve of inoculating on the breaſt, and where no circumſtances forbid this practice, I have no objection to it. Children, however, are more liable to convulſions at this time than after-

* By a well-laid plan for extending inoculation, more lives might be ſaved at a ſmall expence, than are at preſent preſerved by all the hoſpitals in England, which coſt the public ſuch an amazing ſum.

wards; beſides, the anxiety of the mother or nurſe, ſhould the child be in danger, would not fail to heighten it by ſpoiling the milk.

Children who have conſtitutional diſeaſes, muſt nevertheleſs be inoculated. It will often mend the habit of body; but ought to be performed at a time when they are moſt healthy. Accidental diſeaſes ſhould always be removed before inoculation.

It is generally thought neceſſary to regulate the diet for ſome time before the diſeaſe be communicated. In children, however, great alteration in diet is ſeldom neceſſary, their food being commonly of the moſt ſimple and wholeſome kind, as milk, water-pap, weak broths, bread light-pudding, mild roots, and white meats.

But children who have been accuſtomed to a hotter diet, who are of groſs habit, ought to be put upon a ſpare diet before they are inoculated. Their food ſhould be of a light cooling nature, and their drink whey, butter-milk, and ſuch-like.

We recommend no other medical preparation but two or three mild purges, which ought to be ſuited to the age and ſtrength of the patient. The ſucceſs of inoculators does not depend on the preparation of their patients, but on their management of them while under the diſeaſe. Their conſtant care is to keep them cool, and their bodies gently open, by which means the fever is kept low, and the eruption greatly leſſened. The danger is ſeldom great when the puſtules are few; and their number is generally in proportion to the fever which precedes and attends the eruption.—Hence, the chief ſecret of inoculation conſiſts in regulating the eruptive fever, which generally may be kept ſufficiently low by the methods mentioned above.

The regimen during the diſeaſe is in all reſpects the ſame as under the natural ſmall-pox. The patient muſt be kept cool, his diet ſhould be light, and his drink weak and diluting, &c. Should any bad ſymptoms appear, which is ſeldom the caſe, they muſt be treated in the ſame way as directed in the natural ſmall-pox. Purging is not leſs neceſſary after the ſmall-pox, by inoculation than in the natural way, and ought by no means to be neglected.

## CHAPTER XXV.

### *Of the Chicken-Pox.*

THIS diſeaſe is more incident to children than to grown people. It never affects the patient more than once in his life; and then it appears ſo trifling as ſeldom to require the aſſiſtance of a phyſician. The chicken-pox is a contagious diſeaſe, and is generally caught by coming within the infected atmoſphere of the patient or from the clothes of thoſe who have been viſiting the ſick.

SYMPTOMS.——This diſeaſe comes on with moderate ſymptoms of fever, which generally on the ſecond day is followed by an eruption of red pimples over the whole body. They are ſoon filled with a thin whitiſh fluid, which ſometimes aſſumes a yellow colour, with a light inflamed baſe, but the fluid contained in the puſtules has not the property of pus or matter. After the eruption is on the ſkin, the fever ſubſides, and, in three or four days, the puſtules dry, become of a brown colour, and ſcale off.

It is a matter of the moſt ſerious importance, to diſtinguiſh this diſeaſe from the ſmall-pox, as ſometimes the moſt dangerous conſequences have enſued from the miſtake. Children have been ſeized with the ſmall-pox and have died, when their parents thought they had paſt through the diſeaſe.

This diſeaſe may be diſtinguiſhed from the ſmall pox, firſt, by the eruptive fever being more moderate and of ſhorter duration. Secondly, by the puſtules generally containing matter of the colour of milk. Thirdly, by the puſtules filling quicker and continuing a ſhorter time on the ſkin, at fartheſt not more than four or five days, before they become dry, of a brown colour, and ſcale off.

MEDICINE.——The treatment of this diſeaſe ſhould be, by cooling regimen, ſimilar to that uſed in the ſmall-pox. This muſt be more particularly attended to, if the ſymptoms of fever ſhould be conſiderable, which is rarely the caſe. After they empty, and become dry, the patient muſt be purged with jalop and cream-tartar.

## CHAPTER XXVI.

### *Of the Meaſles.*

THE meaſles appeared in Europe about the ſame time with the ſmall-pox, and have a great affinity to that diſeaſe. They both came from the ſame quarter of the world, are both infectious, and ſeldom attack the ſame perſon more than once. The meaſles are moſt common in the ſpring ſeaſon, and generally diſappear in ſummer. The diſeaſe itſelf, when properly managed, ſeldom proves fatal; but its conſequences are often very troubleſome.

CAUSE.——This diſeaſe, like the ſmall-pox, proceeds from infection, and is more or leſs dangerous, according to the conſtitution of the patient, the ſeaſon of the year, the climate, &c.

SYMPTOMS.——The meaſles, like other fevers, are preceded by alternate fits of heat and cold, with ſickneſs, and loſs of appetite. The tongue is white, but generally moiſt. There is a ſhort cough, a heavineſs of the head and eyes, drowſineſs, and a running at the noſe. Sometimes, indeed, the cough does not come before the eruption has appeared. There is an inflammation and heat in the eyes, with a defluxion of ſharp rheum, and great acuteneſs of ſenſation; ſo that they cannot bear the light without pain.

The eye-lids frequently ſwell ſo as to occaſion blindneſs. The patient generally complains of his throat; and a vomiting or looſeneſs often precedes the eruption. The ſtools in children are commonly greeniſh; they complain of an itching of the ſkin, and are remarkably peeviſh. Bleeding at the noſe is common, both before and in the progreſs of the diſeaſe.

About the fourth day, ſmall ſpots, reſembling flea-bites, appear, firſt upon the face, then upon the breaſt, and afterwards on the extremities: theſe may be diſtinguiſhed from the ſmall-pox by their ſcarcely riſing above the ſkin. The fever, cough, and difficulty of breathing, inſtead of being removed by the eruption as in the ſmall-pox, are rather increaſed: but the vomiting generally ceaſes.

About the ſixth or ſeventh day from the time of ſickening, the meaſles begin to turn pale on the face, and afterwards upon the body; ſo that by the ninth day they entirely diſappear. The fever, however, and difficulty of breathing, often continue, eſpecially if the patient has been kept upon too hot a regimen. Petechiæ, or purple ſpots, may likewiſe be occaſioned by this error. A violent looſeneſs ſometimes ſucceeds the meaſles; in which caſe, the patient's life is in imminent danger.

Such as die of the meaſles generally expire about the ninth day from the invaſion, and are commonly carried off by a peripneumony, or inflammation of the lungs. The moſt favourable ſymptoms are, a moderate looſeneſs, a moiſt ſkin, and a plentiful diſchare of urine.

When the eruption ſuddenly falls in, and the patient is ſeized with a delirium, he is in the greateſt danger. If the meaſles turn too ſoon of a pale colour, it is an unfavourable ſymptom, as are alſo great weakneſs, vomiting, reſtleſſneſs, and difficulty of ſwallowing. Purple or black ſpots appearing among the meaſles are very unfavourable. When a continual cough, with hoarſeneſs, ſucceeds the diſeaſe, there is reaſon to ſuſpect an approaching conſumption of the lungs.

Our buſineſs in this diſeaſe is to aſſiſt Nature, by proper cordials, in throwing out the eruption, if her efforts be too languid; but when they are too violent, they muſt be ſtrained by evacuations, and cool diluting liquors, &c. We ought likewiſe to endeavour to appeaſe the moſt urgent ſymptoms, as the cough, reſtleſſneſs, and difficulty of breathing.

REGIMEN.——The cool regimen is neceſſary here as well as in the ſmall-pox. The food muſt be light, and the drink diluting. Acids do not anſwer ſo well in the meaſles as in the ſmall-pox, as they tend to exaſperate the cough. Small beer, though a good drink in the ſmall-pox, is here improper. The moſt ſuitable liquors are decoctions of liquorice with marſh-mallow roots and ſarſaparilla, infuſions of linſeed, or of the flowers of elder, balm-tea, clariſied whey, barley-water and ſuch-like. Theſe, if the patient be coſtive, may be ſweetened with honey; or, if that ſhould diſagree with the ſtomach, a little manna may occaſionally be added to them.

MEDICINE.——The meaſles being an inflammatory diſeaſe, without any critical diſcharge of matter, as in the ſmall-pox, bleeding is commonly neceſſary, eſpecially when the fever runs high, with difficulty of breathing, and great oppreſſion of the breaſt. But if the diſeaſe be of a mild kind, bleeding may be omitted *.

Bathing the feet and legs frequently in lukewarm water, both tends to abate the violence of the fever, and to promote the eruption.

The patient is often greatly relieved by vomiting. When there is a tendency this way, it ought to be promoted by drinking lukewarm water, or weak camomile-tea.

When the cough is very troubleſome, with dryneſs of the throat, and difficulty of breathing, the patient may hold his head over the ſteam of warm water, and draw the ſteam into his lungs.

He may likewiſe lick a little ſpermaceti and ſugar-candy pounded together; or take now-and-then, a ſpoonful of the oil of ſweet almonds, with ſugar-candy diſſolved in it. Theſe will ſoften the throat, and relieve the tickling cough.

If, at the turn of the diſeaſe, the fever aſſumes new vigour, and there appears great danger of ſuffocation, the patient muſt be bled according to his ſtrength, and bliſters applied, with a view to prevent the load from being thrown on the lungs; where, if an inflammation ſhould fix itſelf, the patient's life will be in imminent danger.

In caſe the meaſles ſuddenly diſappear, it will be neceſſary to purſue the ſame method recommended when the ſmall-pox recede. The patient muſt be ſupported with wine and cordials. Bliſters muſt be applied to the legs and arms, and the body rubbed all over with warm flannels. Warm poultices may likewiſe be applied to the feet and palms of the hands.

When purple or black ſpots appear, the patient's drink ſhould be ſharpened with ſpirits of vitriol; and, if the ſymptoms increaſe, the bark muſt be adminiſtered in the ſame manner, as directed in the ſmall-pox †.

Opiates are ſometimes neceſſary, but ſhould never be given except in caſes of extreme reſtleſſneſs, a violent looſeneſs, or when the cough is very troubleſome. For children, the ſyrup of poppies is ſufficient. A tea-ſpoonful or two may be occaſionally given, according to the patient's age, or the violence of the ſymptoms.

After the meaſles are gone off, the patient ought to be purged. This may be conducted in the ſame manner as directed in the ſmall-pox.

If a violent looſeneſs ſucceeds the meaſles, it may be checked by taking for ſome days a gentle doſe of rhubarb in the morning, and

* I do not know any diſeaſe wherein bleeding is more neceſſary than in the meaſles, eſpecially when the fever runs high: in this caſe, I have always found it relieve the patient.

† Wine ſhould be allowed the patient, to co-operate with the bark, in ſupporting the vigour of the ſyſtem. This ſhould be the practice in all caſes when there is a tendency, as it is commonly called, to putrefaction. (I. C.)

an opiate over night; but if theſe do not remove it, bleeding will ſeldom fail to have that effect.

Patients recovering after the meaſles ſhould be careful what they eat or drink. Their food for ſome time ought to be light, and in ſmall quantities, their drink diluting, and rather of an opening nature, as butter-milk, whey, and ſuch-like. They ought alſo to beware of expoſing themſelves too ſoon to the cold air, leſt a ſuffocating catarrh, an aſthma, or a conſumption of the lungs ſhould enſue.

Should a cough, with a difficulty of breathing, and other ſymptoms of a conſumption, remain after the meaſles, ſmall quantities of blood may be frequently let, at proper intervals, as the patient's ſtrength and conſtitution will permit. He ought to drink aſſes-milk, to remove to a free air, if in a large town, and to ride daily on horſeback. He muſt keep cloſe to a diet of milk and vegetables; and if theſe do not ſucceed, let him remove to a warmer climate*.

## *Of the Scarlet Fever.*

THE ſcarlet fever is ſo called from the colour of the patient's ſkin, which appears as if tinged with red wine. It happens at any ſeaſon of the year, but is moſt common towards the end of ſummer; when it often ſeizes whole families. Children and young perſons are moſt ſubject to it.

It begins, like other fevers, with coldneſs and ſhiverings, without any violent ſickneſs. Afterwards the ſkin is covered with red ſpots, which are broader, more florid, and leſs uniform than the meaſles. They continue two or three days, and then diſappear; after which the cuticle, or ſcarf-ſkin, falls off.

There is ſeldom any occaſion for medicine in this diſeaſe. The patient ought however to keep within doors, to abſtain from fleſh,

* Attempts have been made to communicate the meaſles, as well as the ſmall-pox, by inoculation; and we make no doubt, but in time, the practice may ſucceed. Dr. Home of Edinburgh, ſays, he communicated the diſeaſe by the blood. Others have tried this method, and have not found it ſucceed. Some think the diſeaſe would be more certainly communicated, by rubbing the ſkin of a patient, who has the meaſles, with cotton, and afterwards applying the cotton to a wound, as in the ſmall-pox; while others recommend a bit of flannel which had been applied to the patient's ſkin, all the time of the diſeaſe, to be afterwards laid upon the arm or leg of the perſon to whom the infection is to be communicated. There is no doubt, but this diſeaſe, as well as the ſmall-pox, may be communicated in various ways; the moſt probable, however, is either from cotton rubbed upon the ſkin, as mentioned above, or by introducing a little of the ſharp humour, which diſtils from the eyes of the patient into the blood. It is agreed on all hands, that ſuch patients as have been inoculated, had the diſeaſe very mildly; we therefore wiſh the practice were more general, as the meaſles have of late become very fatal.

ſtrong liquors, and cordials, and to drink freely of cool diluting liquors. If the fever runs high, the body muſt be kept gently open by emollient clyſters, or cream of tartar and nitre, one or two drachms of the former, with eight or ten grains of the latter, may be taken two or three times a day.

Children and young perſons are ſometimes ſeized at the beginning of this diſeaſe with a kind of ſtupor and epileptic fits. In this caſe, the feet and legs ſhould be bathed in warm water*, a large bliſter applied to the neck, and a doſe of the ſyrup of poppies given every night till the patient recovers.

The ſcarlet fever is not always ſo mild. It is ſometimes attended with putrid or malignant ſymptoms, in which caſe, it is always dangerous. In the malignant ſcarlet fever the patient is not only affected with coldneſs and ſhivering, but with languor, ſickneſs, and great oppreſſion; to theſe ſucceed exceſſive heat, nauſea and vomiting, with a ſoreneſs of the throat; the pulſe is extremely quick, but ſmall and depreſſed; the breathing frequent and laborious; the ſkin hot, but not quite dry; the tongue moiſt, and covered with a whitiſh mucus; the tonſils inflamed and ulcerated. When the eruption appears, it brings no relief; on the contrary, the ſymptoms generally grow worſe, and freſh ones come on, as purging, delirium, &c.

When this diſeaſe is miſtaken for a ſimple inflammation, and treated with repeated bleedings, purging and cooling medicines, it generally proves fatal. The only medicines that can be depended on in this caſe are cordials and antiſeptics, as the bark, wine, ſnake-root, and the like. The treatment muſt be in general ſimilar to that of the malignant ulcerous ſore throat†.

## *Of the Bilious Fever.*

WHEN a continual, remitting, or intermitting fever is accompanied with a frequent or copious evacuation of bile, either by vomit or ſtool, the fever is denominated bilious. In Britain, the bilious fever generally makes its appearance about the end of ſummer, and ceaſes towards the approach of winter. It is moſt frequent and fatal in warm countries, eſpecially where the ſoil is marſhy, and

* If the pulſe be full and hard, blood muſt be taken from the arm or jugular vein. (I. C.)

† In the year 1774, during winter, a very bad ſpecies of this fever prevailed in Edinburgh. It raged chiefly among young people. The eruption was generally accompanied with a quinſey, and the inflammatory ſymptoms were ſo blended with others of a putrid nature, as to render the treatment of the diſeaſe very difficult. Many of the patients, towards the decline of the fever, were afflicted with large ſwellings of the ſubmaxillary glands, and not a few had a ſuppuration in one or both ears.

when great rains are succeeded by sultry heats. Persons who work without doors, lie in camps, or who are exposed to the night air, are most liable to this kind of fever.

If there are symptoms of inflammation at the beginning of this fever, it will be necessary to bleed, and to put the patient upon the cool diluting regimen recommended in the inflammatory fever. The saline draught may be frequently administered, and the patient's body kept open by clysters or mild purgatives. But if the fever should remit or intermit, bleeding will seldom be necessary. In this case, a vomit may be administered, and, if the body be bound, a gentle purge; after which the bark will generally complete the cure.

In case of a violent looseness, the patient must be supported with chicken broth, jellies of hartshorn, and the like; and he may use the *white decoction* for his ordinary drink*. If a bloody flux should accompany this fever, it must be treated as recommended under the article *Dysentery*.

When there is a burning heat, and the patient does not sweat, that evacuation may be promoted by giving him, three or four times a day, a table-spoonful of Mindererus's spirit† mixed in a cup of his ordinary drink.

If the bilious fever be attended with the nervous, malignant, or putrid symptoms, which is sometimes the case, the patient must be treated in the same manner as directed under these diseases.

After this fever, proper care is necessary to prevent a relapse. For this purpose, the patient, especially towards the end of autumn, ought to continue the use of the bark for some-time after he is well. He should abstain from all trashy fruits, new liquors, and every kind of flatulent aliment.

Rose.

## CHAPTER XXVII.

Grief or any thing saith has been nigh, to be about as Death

### Of the Erysipelas, or St. Anthony's Fire.

THIS disease, which in some parts of Britain is called *the rose*, attacks persons at any period of life, but is most common between the age of thirty and forty. Persons of a sanguine or plethoric habit, are most liable to it. It often attacks young people, and pregnant women; and such as have once been afflicted with it, are very liable to have it again. Sometimes it is a primary disease, and at other times only a symptom of some other malady. Every part of the body is liable to be attacked by an erysipelas, but it most frequently seizes the legs or face, especially the latter. It is most common in autumn, or when hot weather is succeeded by cold and wet.

* See Appendix, White Decoction.
† See Appendix, Spirit of Mindererus.

CAUSES.——The erysipelas may be occasioned by violent passions or affections of the mind; as fear, anger, &c. When the body has been heated to a great degree, and is immediately exposed to the cold air, so that the perspiration is suddenly checked, an erysipelas will often ensue*. It may also be occasioned by drinking to excess, by continuing too long in a warm bath, or by any thing that overheats the blood. If any of the natural evacuations be obstructed, or in too small quantity, it may cause an erysipelas. The same effect will follow from the stoppage of artificial evacuations; as issues, setons, or the like.

SYMPTOMS.——The erysipelas attacks with shivering, thirst, loss of strength, pain in the head and back, heat, restlessness, a quick pulse, vomiting, and sometimes a delirium. On the second, third, or fourth day, the part swells, becomes red, and small pustules appear; at which time the fever generally abates.

When the erysipelas seizes the foot, the parts contiguous swell, the skin shines; and, if the pain be violent, it will ascend to the leg, and will not bear to be touched.

When it attacks the face, it swells, appears red, and the skin is covered with small pustules filled with clear water. One, or both eyes are generally closed with the swelling; and there is a difficulty of breathing. If the mouth and nostrils be very dry, and the patient drowsy, there is reason to suspect an inflammation of the brain.

If the erysipelas affects the breast, it swells and becomes exceedingly hard, with great pain, and is apt to suppurate. There is a violent pain in the arm-pit, on the side affected, where an abscess is often formed.

If in a day or two, the swelling subsides, the heat and pain abate, the colour of the part turns yellow, and the cuticle breaks and falls off in scales, the danger is over.

When the erysipelas is large, deep, and affects a very sensible part of the body, the danger is great. If the red colour changes into a livid or black, it will end in a mortification. Sometimes the inflammation cannot be discussed, but comes to a suppuration; in which case, fistulas, gangrene, or mortification, often ensue.

Such as die of this disease, are commonly carried off by the fever, which is attended with difficulty of breathing, and sometimes with a delirium and great drowsiness. They generally die about the seventh or eighth day.

REGIMEN.——In the erysipelas the patient must neither be kept too hot nor too cold, as either of these extremes will tend to

* The country people in many parts of Britain call this disease a blast, and imagine it proceeds from foul air, or ill wind, as they term it. The truth is, they often lie down to rest them, when warm and fatigued, upon the damp ground, where they fall asleep, and lie so long as to catch cold, which occasions the erisypelas. This disease may indeed proceed from other causes, but nine times out of ten it is occasioned by cold caught after the body has been greatly heated or fatigued.

make it retreat, which is always to be guarded againſt. When the diſeaſe is mild, it will be ſufficient to keep the patient within doors, without confining him to his bed, and to promote the perſpiration by diluting liquors, &c.

The diet ought to be ſlender, and of a moderately cooling and moiſtening quality, as groat-gruel, panado, chicken or barley-broth, with cooling herbs and fruits, &c. avoiding fleſh, fiſh, ſtrong drink, ſpices, pickles, and all other things that may heat and inflame the blood; the drink may be barley-water, an infuſion of elder-flowers, common whey, and ſuch like.

But if the pulſe be low, and the ſpirits ſunk, the patient muſt be ſupported with negus, and other things of a cordial nature. His food may be ſago gruel, with a little wine, and nouriſhing broths, taken in ſmall quantities, and often repeated. Great care muſt be taken not to overheat him.

MEDICINE——In this diſeaſe much miſchief is often done by medicine, eſpecially by external applications. People, when they ſee an inflammation, immediately think that ſomething ought to be applied to it. This indeed is neceſſary in large phlegmons; but in an eryſipelas, the ſafer courſe is to apply nothing. Almoſt all ointments, ſalves, and plaſters, being of a greaſy nature, tend rather to obſtruct and repel, than promote and diſcharge from the part. At the beginning of this diſeaſe, it is neither ſafe to promote a ſuppuration, nor to repel the matter too quickly. The eryſipelas in many reſpects reſembles the gout, and is to be treated with the greateſt caution. Fine wool, or very ſoft flannel, are the ſafeſt applications to the part. Theſe not only defend it from the external air, but likewiſe promote the perſpiration, which has a great tendency to carry off the diſeaſe. In Scotland, the common people generally apply a mealy cloth to the parts affected, which is not improper. Ray Flour paneh. Excellent

It is common to bleed in the eryſipelas; but this requires caution. If the fever be high, the pulſe hard and ſtrong, and the patient vigorous, it will be proper to bleed; but the quantity muſt be regulated by theſe circumſtances, and the operation repeated as the ſymptoms may require. If the patient has been accuſtomed to ſtrong liquors, and the diſeaſe attacks his head, bleeding is abſolutely neceſſary.

Bathing the feet and legs frequently in lukewarm water, when the diſeaſe attacks the face or brain, has an excellent effect. It tends to make a derivation from the head, and ſeldom fails to relieve the patient. When bathing proves ineffectual, poultices, or ſharp ſynapiſms, may be applied to the ſoles of the feet, for the ſame purpoſe.

In caſes where bleeding is requiſite, it is likewiſe neceſſary to keep the body open. This may be effected by emollient clyſters, or ſmall doſes of nitre and cream of tartar. Some recommend very large doſes of nitre in the eryſipelas; but nitre ſeldom ſits eaſy on

the ſtomach, when taken in large doſes. It is one of the beſt medicines when the fever and inflammation run high. Half a drachm of it, with one or two drachms of cream of tartar, may be given in the patients ordinary drink, four times a day.

When the eryſipelas leaves the extremities, and ſeizes the head, ſo as to occaſion a delirium or ſtupor, it is abſolutely neceſſary to open the body. If clyſters and mild purgatives fail to have this effect, ſtronger ones muſt be given. Bliſters muſt likewiſe be applied to the neck, or behind the ears, and ſharp cataplaſms laid to the ſoles of the feet.

When the inflammation cannot be diſcuſſed, and the part has a tendency to ulcerate, it will then be proper to promote ſuppuration, which may be done by the application of emollient poultices, ſuch as bread and milk, or thoſe made with flaxſeed flower.

When the black, livid, or blue colour of the part ſhows a tendency to mortification, the bark muſt be adminiſtered. It may be taken along with acids, as recommended in the ſmall pox, or in any other form, more agreeable to the patient. It muſt not however be trifled with, as the patient's life is at ſtake. A drachm may be given every two hours, if the ſymptoms be threatening, and cloths dipped in warm camphorated ſpirits of wine, of the tincture of myrrh and aloes, may be applied to the part, and frequently renewed. It may likewiſe be proper in this caſe to apply poultices of the bark, or to foment the part affected with a ſtrong decoction of it.

In what is commonly called the *ſcorbutic eryſipelas*, which conſorinues at conſiderable time, it will only be neceſſary to give gentle laxatives, and ſuch things as promote the perſpiration. Thus, after the inflammation has been checked by opening medicines, the decoction of woods* may be drank, after which a courſe of bitters will be proper.

Such as are liable to frequent attacks of the eryſipelas, ought carefully to guard againſt all violent paſſions; to abſtain from ſtrong liquors, and all fat, viſcid, and highly nouriſhing food. They ſhould likewiſe take ſufficient exerciſe, carefully avoiding the extremes of heat or cold. Their food ſhould conſiſt chiefly of milk, and ſuch fruits, herbs and roots, as are of a cooling quality; and their drink ought to be ſmall-beer, whey, butter-milk, and ſuch like. They ſhould never ſuffer themſelves to be long coſtive. If that cannot be prevented by ſuitable diet, it will be proper to take frequently a gentle doſe of cream of tartar, the lenitive electuary, or ſome other mild purgative.

* See Appendix, Decoction of Woods.

## CHAPTER XXVIII.

### *Of the Phrenitis; or, Inflammation of the Brain.*

THIS is sometimes a primary disease. but oftener only a symptom of some other malady; as the inflammatory, eruptive, or spotted fever, &c. It is very common, as a primary disease, in warm climates, and is most incident to persons about the prime or vigour of life. The passionate, the studious, and those whose nervous system is irritable in a high degree, are most liable to it.

CAUSES.——This disease is often occasioned by night-watching, especially when joined with hard study: it may likewise proceed from hard drinking, anger, grief or anxiety. It is often occasioned by the stoppage of usual evacuations; as the bleeding piles in men, the customary discharges of women, &c. Such as imprudently expose themselves to the heat of the sun, especially by sleeping without doors in a hot season with their heads uncovered, are often suddenly seized with an inflammation of the brain, so as to awake quite delirious. When repellants are imprudently used in an erysipelas, an inflammation of the brain is sometimes the consequence. It may be occasioned by external injuries, as blows or bruises upon the head, &c.

SYMPTOMS.——The symptoms which usually precede a true inflammation of the brain are pain of the head, redness of the eyes, a violent flushing of the face, disturbed sleep, or a total want of it, great dryness of the skin, costiveness, a retention of urine, a small dropping of blood from the nose, singing of the ears, and extreme sensibility of the nervous system.

When the inflammation is formed, the symptoms in general are similar to those of the inflammatory fever. The pulse indeed is often weak, irregular, and trembling; but sometimes hard and contracted. When the brain itself is inflamed, the pulse is always soft and low; but when the inflammation only affects the integuments of the brain, viz. the dura and pia mater, it is hard. A remarkable quickness of hearing is a common symptom of this disease; but that seldom continues long. Another usual symptom is a great throbbing or pulsation in the arteries of the neck and temples. Though the tongue is often black and dry, yet the patient seldom complains of thirst, and even refuses drink. The mind chiefly runs upon such objects as have before made a deep impression on it; and sometimes, from a sullen silence, the patient becomes all of a sudden quite outrageous.

A constant trembling and starting of the tendons is an unfavourable symptom, as are also a suppression of urine; a total want of sleep; a constant spitting; a grinding of the teeth, which last may be considered as a kind of convulsion. When a phrenitis succeeds

an inflammation of the lungs, of the inteſtines, or of the throat, &c. it is owing to a tranſlation of the diſeaſe from theſe parts to the brain, and generally proves fatal. This ſhews the neceſſity of proper evacuations, and the danger of repellents in all inflammatory diſeaſes.

The favourable ſymptoms are, a free perſpiration, a copious diſcharge of blood from the noſe, the bleeding piles, a plentiful diſcharge of urine, which lets fall a copious ſediment. Sometimes the diſeaſe is carried off by a looſeneſs, and in women by an exceſſive flow of the menſes.

As this diſeaſe often proves fatal in a few days, it requires the moſt ſpeedy applications. When prolonged, or improperly treated, it ſometimes ends in madneſs, or a kind of ſtupidity, which continues for life.

In the cure, two things are chiefly to be attended to, *viz.* to leſſen the quantity of blood in the brain, and to retard the circulation towards the head.

REGIMEN.——The patient ought to be kept very quiet. Company, noiſe, and every thing that affects the ſenſes, or diſturbs the imagination, increaſes the diſeaſe. Even too much light is hurtful: for which reaſon, the patient's chamber ought to be a little darkened, and he ſhould neither be kept too hot nor cold. It is not neceſſary to exclude the company of an agreeable friend, as this has a tendency to ſooth and quiet the mind. Neither ought the patient to be kept too much in the dark, leſt it ſhould occaſion a gloomy melancholy, which is too often the conſequence of this diſeaſe.

The patient muſt, as far as poſſible, be ſoothed and humoured in every thing. Contradiction will ruffle his mind, and increaſe his malady. Even when he calls for things which are not to be obtained, or which might prove hurtful, he is not to be poſitively denied them, but rather put off with the promiſe of having them as ſoon as they can be obtained, or by ſome other excuſe. A little of any thing that the mind is ſet upon, though not quite proper, will hurt the patient leſs than a poſitive refuſal. Whatever he was delighted with when in health, may here be tried; as pleaſing ſtories, ſoft muſic, or whatever has a tendency to ſooth the paſſions and compoſe the mind. Boerhaave propoſes ſeveral mechanical experiments for this purpoſe; as the ſoft noiſe of water diſtilling by drops into a baſon, and the patient trying to reckon them, &c. Any uniform ſound, if low and continued, has a tendency to procure ſleep, and conſequently may be of ſervice.

The aliment ought to be light, conſiſting chiefly of farinaceous ſubſtances; as panado, and water-gruel, ſharpened with jelly of currants, or juice of lemons, ripe fruits, roaſted or boiled, jellies, preſerves, &c. The drink, ſmall, diluting, and cooling; as whey, barley-water, or decoction of barley and tamarinds, which latter not only render the liquor more palatable, but likewiſe more beneficial, as they are of an opening nature.

MEDICINE.——Nothing more certainly relieves the patient than a free diſcharge of blood from the noſe. When this comes of its own accord, it is by no means to be ſtopped, but rather promoted, by applying cloths dipped in warm water to the part.

Bleeding in the temporal arteries greatly relieves the head: but as this operation cannot always be performed, we recommend in its ſtead, bleeding in the jugular veins. When the patient's pulſe and ſpirits are ſo low, that he cannot bear bleeding with the lancet, leeches may be applied to the temples. Theſe not only draw off the blood more gradually, but by being applied nearer to the part affected, generally give more immediate relief.

A diſcharge of blood from the hæmorrhoidal veins is of great ſervice, and ought by all means to be promoted. If the patient has been ſubject to the bleeding piles, and that diſcharge has been ſtopped, every method muſt be tried to reſtore it; as the application of leeches to the parts, ſitting over the ſteams of warm water, ſharp clyſters, or ſuppoſitories made of honey, aloes, and rock-ſalt.

If the inflammation of the brain be occaſioned by the ſtoppage of evacuations either natural or artificial, as the menſes, iſſues, ſetons, or ſuch like, all means muſt be uſed to reſtore them as ſoon as poſſible, or to ſubſtitute others in their ſtead.

The patient's body muſt be kept open by ſtimulating clyſters or ſmart purges; and ſmall quantities of nitre ought frequently to be mixed with his drink. Two or three drachms, or more, if the caſe be dangerous, may be uſed in the ſpace of twenty-four hours.

The head ſhould be ſhaved and frequently rubbed with vinegar and roſe-water. Cloths dipped in this mixture may likewiſe be applied to the head*. The feet ought frequently to be bathed in lukewarm water, and ſoft poultices of bread and milk may be kept conſtantly applied to them.

If the diſeaſe proves obſtinate, and does not yield to theſe medicines, it will be neceſſary to apply a bliſter to the whole head.

## CHAPTER XXIX.

### *Of the Ophthalmia; or, Inflammation of the Eyes.*

THIS diſeaſe may be occaſioned by external injuries; as blows, burns, bruiſes, and the like. It may likewiſe proceed from duſt, quick-lime, or other ſubſtances getting into the eyes. It is often cauſed by the ſtoppage of cuſtomary evacuations; as the healing of old ſores, drying up of iſſues, the ſuppreſſing of gentle morning ſweats, or of the ſweating of the feet, &c. Long expoſure to the night air, eſpecially in cold northerly winds, or whatever ſud-

* Even ice, when it can be procured, may be employed with advantage. (I. C.)

denly checks the perſpiration, eſpecially after the body has been much heated, is very apt to cauſe it. Viewing ſnow or other white bodies for a long time, or looking ſtedfaſtly at the ſun, a clear fire, or any bright object, will occaſion this malady. A ſudden tranſition from darkneſs to very bright light, will often have the ſame effect.

Nothing more certainly occaſions an inflammation of the eyes than night-watching, eſpecially reading or writing by candle-light. Drinking ſpirituous liquors, an exceſs of venery, are very hurtful to the eyes. The acrid fumes of metals, and of ſeveral kinds of fuel, are alſo pernicious. Sometimes an inflammation of the eyes proceeds from a venereal taint, and often from a ſcrophulous or gouty habit. It may likewiſe be occaſioned by the hairs in the eye-lids turning inwards, and hurting the eyes. Sometimes the diſeaſe is epidemic, eſpecially after wet ſeaſons; and I have frequently known it prove infectious, particularly to thoſe who lived in the ſame houſe with the patient. It may be occaſioned by moiſt air, or living in low damp houſes, eſpecially in perſons who are not accuſtomed to ſuch ſituations. In children it often proceeds from imprudently drying up of ſcabbed heads, a running behind the ears, or any other diſcharge of that kind. Inflammations of the eyes often ſucceed the ſmall-pox or meaſles, eſpecially in children of a ſcrophulous habit.

SYMPTOMS.——An inflammation of the eyes is attended with an acute pain, heat, redneſs, and ſwelling. The patient is not able to bear the light, and ſometimes he feels a pricking pain, as if his eyes were pierced with a thorn. Sometimes he imagines his eyes are full of motes, or thinks he ſees flies dancing before him. The eyes are filled with a ſcalding rheum, which ruſhes forth in great quantities, whenever the patient attempts to look up. The pulſe is generally quick and hard, with ſome degree of fever. When the diſeaſe is violent, the neighbouring parts ſwell, and there is a throbbing or pulſation in the temporal arteries, &c.

A ſlight inflammation of the eyes, eſpecially from an external cauſe, is eaſily cured; but when the diſeaſe is violent, and continues long, it often leaves ſpecks upon the eyes, or dimneſs of ſight, and ſometimes total blindneſs.

If the patient be ſeized with a looſeneſs, it has a good effect; and when the inflammation paſſes from one eye to another, as it were by infection, it is no unfavourable ſymptom. But when the diſeaſe is accompanied with a violent pain of the head, and continues long, the patient is in danger of loſing his ſight.

REGIMEM.——The diet unleſs in ſcrophulous caſes, can hardly be too ſpare, eſpecially at the beginning. The patient muſt abſtain from every thing of a heating nature. His food ſhould conſiſt chiefly of mild vegetables, weak broths, and gruels. His drink may be barley-water, balm-tea, common whey, and ſuch-like. His chamber muſt be darkened, or his eyes ſhaded by a cover, ſo as to exclude the light, but not to preſs upon the eyes. He ſhould not look at a candle, the fire, or any luminous object; and ought to avoid all

ſmoke, as the fumes of tobacco, or any thing that may cauſe coughing, ſneezing, or vomiting. He ſhould be kept quiet, avoiding all violent efforts, either of body or mind, and encouraging ſleep as much as poſſible.

MEDICINE.——This is one of thoſe diſeaſes wherein great hurt is often done by external applications. Almoſt every perſon pretends to be poſſeſſed of a remedy for the cure of ſore-eyes. Theſe remedies generally conſiſt of eye-waters and ointments, with other external applications, which do miſchief twenty times for once they do good. People ought to be very cautious how they uſe ſuch things, as even the preſſure upon the eyes often increaſes the malady.

Bleeding, in a violent inflammation of the eyes, is always neceſſary. This ſhould be performed as near the part affected as poſſible. An adult may looſe ten or twelve ounces of blood from the jugular vein, and the operation may be repeated according to the urgency of the ſymptoms. If not convenient to bleed in the neck, the ſame quantity may be let from the arm, or any other part of the body.

Leeches are often applied to the temples, or under the eyes, with good effect*. The wounds muſt be ſuffered to bleed for ſome hours, and if the bleeding ſtop ſoon, it may be promoted by the application of cloths dipt in warm water. In obſtinate caſes, it will be neceſſary to repeat this operation ſeveral times.

Briſk purging with glauber ſalt, ſhould be produced, during the time bleeding is uſed; after that, the bowels may be kept open every other day, with a decoction of tamarinds with ſenna. A gentle doſe of cream of tartar, caſtor-oil, or any other laxative, will anſwer the ſame end.

If the inflammation does not yield to theſe evacuations, bliſters muſt be applied to the temples, behind the ears, or upon the neck, and kept open for ſome time by the mild bliſtering ointment. I have ſeldom known theſe, if long enough kept open, fail to remove the moſt obſtinate inflammation of the eyes; but for this purpoſe, it is often neceſſary to continue the diſcharge for ſeveral weeks.

When the diſeaſe has been of long ſtanding, I have ſeen very extraordinary effects from a ſeton in the neck, or between the ſhoulders, eſpecially the latter. It ſhould be put upwards and downwards, or in the direction of the ſpine, and in the middle, between the ſhoulder blades. It may be dreſſed twice a day with yellow baſilicon. I have known patients, who had been blind for a conſiderable time, recover ſight by means of a ſeton placed as above. When the ſeton is put acroſs the neck, it ſoon wears out, and is both more painful and troubleſome than between the ſhoulders; beſides, it leaves a diſagreeable mark, and does not diſcharge ſo freely.

When the heat and pain of the eyes are very great, a poultice of bread and milk, ſoftened with ſweet oil or freſh butter, may be

* If leeches cannot be procured, blood may be drawn from the temple by cupping. (I. C.)

applied to them, at leaſt all night; and they may be bathed with lukewarm milk and water in the morning.

If the patient cannot ſleep, which is ſometimes the caſe, he may take twenty or thirty drops of laudanum, or two ſpoonfuls of the ſyrup of poppies, over night, more or leſs according to his age, or the violence of the ſymptoms.

After the inflammation is gone off, if the eyes remain weak and tender, they may be bathed every night and morning with cold water and a little brandy, ſix parts of the former to one of the latter. A method ſhould be contrived by which the eye can be quite immerſed in the brandy and water, where it ſhould be kept for ſome time. I have generally found this, or cold water and vinegar, as good a ſtrengthener of the eyes as any of the moſt celebrated collyriums.

When an inflammation of the eyes proceeds from a ſcrophulous habit, it generally proves very obſtinate. In this caſe, the patient's diet muſt not be too low, and he may be allowed to drink ſmall negus, or now-and-then a glaſs of wine. The moſt proper medicine is the bark, which may be given in ſubſtance, or prepared as follows:

Take an ounce of the bark in powder, with two drachms of Winter's bark, and boil them in an Engliſh quart of water to a pint; when it has boiled nearly long enough, add half an ounce of liquorice root, ſliced. Let the liquor be ſtrained. Two, three, or four table-ſpoonfuls, according to the age of the patient, may be taken three or four times a-day. It is impoſſible to ſay how long this medicine ſhould be continued, as the cure is ſooner performed in ſome than in others; but, in general, it requires a conſiderable time to produce any laſting effects.

Preparations of mercury may be of ſingular ſervice in ophthalmias of long continuance, but they ought always to be adminiſtered with the greateſt caution, or by perſons of ſkill in phyſic.

It will be proper frequently to look into the eyes, to ſee if any hairs be turned inwards, or preſſing upon them*. Theſe ought to be plucked out with a pair of ſmall pincers.

Thoſe who are liable to frequent returns of this diſeaſe, ought conſtantly to have an iſſue in one or both arms. Bleeding or purging in ſpring and autumn, will be very beneficial to ſuch perſons. They ought likewiſe to live with the greateſt regularity, avoiding ſtrong liquor, and every thing of a heating quality. Above all, let them avoid the night air and late ſtudies†.

* Any foreign body lodged in the eye may be expeditiouſly removed by paſſing a ſmall hair-pencil between the eye-lid and the ball of the eye. In ſome places, the peaſants do this very effectually, by uſing their tongue in the ſame manner.

† As moſt people are fond of uſing eye-waters and ointments in this and other diſeaſes of the eyes, we have inſerted ſome of the moſt approved forms of theſe medicines in the appendix. See Appendix, Eye-water and Eye-ſalve.

## CHAPTER XXX.

### *Of the Quinſey; or, Inflammation of the Throat.*

THIS diſeaſe is very common in Britain, and is frequently attended with great danger. It prevails in the winter and ſpring, and is moſt fatal to young people of a ſanguine temperament.

CAUSES.——In general it proceeds from the ſame cauſe as other inflammatory diſorders, viz. an obſtructed perſpiration. It is often occaſioned by omitting ſome part of the covering, uſually worn about the neck, by drinking cold liquor when the body is warm, by riding or walking againſt a cold northerly wind, or by any thing that greatly cools the throat, and parts adjacent. It may likewiſe proceed from the neglect of bleeding, purging or any cuſtomary evacuation.

Singing, ſpeaking loud and long, or whatever ſtrains the throat, may likewiſe cauſe an inflammation of that organ. I have often known the quinſey prove fatal to jovial companions, who, after ſitting long in a warm room, drinking hot liquors, and ſinging with vehemence, were ſo imprudent as to go abroad in the cold night-air. Sitting with wet feet, or keeping on wet clothes, is very apt to occaſion this malady. It is frequently occaſioned by continuing long in a moiſt place, ſitting near an open window, ſleeping in a damp bed, ſitting in a room that has been newly plaſtered, &c. I know people who never fail to have a ſoar throat, if they ſit even but a ſhort time in a room lately waſhed.

Acrid or irritating food may inflame the throat, and occaſion a quinſey. It may proceed from bones, pins, or other ſharp ſubſtances ſticking in the throat, or from the cauſtic fumes of metals or minerals, as arſenic, antimony, &c. taken in by the breath. This diſeaſe is ſometimes epidemic and infectious.

SYMPTOMS.——The inflammation of the throat is evident from inſpection, the parts appearing red and ſwelled; beſides, the patient complains of pain in ſwallowing. His pulſe is quick and hard, with other ſymptoms of a fever. If blood be let, it is generally covered with a tough coat of a whitiſh colour, and the patient ſpits a tough phlegm. As the ſwelling and inflammation increaſe, the breathing and ſwallowing become more difficult; the pain affects the ears; the eyes generally appear red; and the face ſwells. The patient is often obliged to keep himſelf in an erect poſture, being in danger of ſuffocation; there is a conſtant nauſea, or inclination to vomit; and the drink, inſtead of paſſing into the ſtomach, is often returned by the noſe. The patient is ſometimes ſtarved at laſt, merely from an inability to ſwallow any kind of food.

When the breathing is laborious, with ſtraitneſs of the breaſt,

and anxiety, the danger is great. Though the pain in ſwallowing be very great, yet while the patient breathes eaſy, there is not ſo much danger. An external ſwelling is no unfavourable ſymptom; but if it ſuddenly falls, and the diſeaſe affects the breaſt, the danger is very great. When a quinſey is the conſequence of ſome other diſeaſe, which has already weakened the patient, his ſituation is dangerous. A frothing at the mouth, with a ſwelled tongue, a pale, ghaſtly countenance, and coldneſs of the extremities, are fatal ſymptoms.

REGIMEN.——The regimen in this diſeaſe is in all reſpects the ſame as in the pleuriſy, or peripneumony. The food muſt be light, and in ſmall quantity, and the drink plentiful, weak and diluting, mixed with acids.

It is highly neceſſary that the patient be kept eaſy and quiet. Violent affections of the mind, or great efforts of the body, may prove fatal. He ſhould not even attempt to ſpeak but in a low voice. Such a degree of warmth as to promote a conſtant, gentle ſweat, is proper. When the patient is in bed, his head ought to be raiſed a little higher than uſual.

It is peculiarly neceſſary that the neck be kept warm; for which purpoſe, ſeveral folds of ſoft flannel may be wrapt round it. That alone will often remove a ſlight complaint of the throat, if applied in due time. A judicious cuſtom prevails among the peaſants of Scotland: When they feel any uneaſineſs of the throat, they wrap a ſtocking about it all night. So effectual is this remedy, that in many places it paſſes for a charm, and the ſtocking is applied with particular ceremonies: this cuſtom ſhould never be neglected. When the throat has been thus wrapt up all night, it muſt not be expoſed to the cold air through the day, but a handkerchief or a piece of flannel kept about it till the inflammation be removed.

The jelly of black currants is a medicine very much in eſteem for complaints of the throat; and is of ſome uſe. It ſhould be almoſt conſtantly kept in the mouth, and ſwallowed down leiſurely. It may be mixed in the patient's drink, or taken any other way. When it cannot be obtained, the jelly of red currants, or of mulberries, may be uſed in its ſtead.

Gargles for the throat are very beneficial. They may be made of ſage-tea, with a little vinegar and honey, or by adding to half an Engliſh pint of the pectoral decoction, two or three ſpoonfuls of honey, and the ſame quantity of currant jelly. This may be uſed three or four times a-day; and if the patient be troubled with tough viſcid phlegm, the gargle may be rendered more ſharp and cleanſing, by adding to it a tea-ſpoonful of the ſpirit of ſal ammoniac. Some recommend gargles made of a decoction of the leaves or bark of the black-currant-buſh; but where jelly can be had, theſe are unneceſſary.

In no diſeaſe is the benefit of bathing the feet and legs in luke-warm water more apparent: that practice ought therefore never to be neglected. If people were careful to keep warm, to wrap up

their throats with flannel, to bathe their feet and legs in warm water, and to use a spare diet, with diluting liquors, at the beginning of this disease, it would seldom proceed to a great height, or be attended with any danger: but when these precautions are neglected, and it becomes violent, more powerful medicines are necessary.

MEDICINE.——An inflammation of the throat being a most acute and dangerous distemper, which sometimes takes off the patient very suddenly, it will be proper, as soon as the symptoms appear, to bleed in the arm, or rather in the jugular vein, and to repeat the operation if circumstances require.

The body should be kept gently open by giving the patient for his ordinary drink, a decoction of figs and tamarinds, or small doses of cream of tartar and nitre, as recommended in the erysipelas. These may be increased according to the age of the patient, and repeated till they have the desired effect.

I have often known very good effects from a bit of sal prunel, or purified nitre, held in the mouth, and swallowed down as it melted. This promotes the discharge of saliva, answers the end of a gargle, while at the same time it abates the fever, by promoting the discharge of urine, &c.

The throat ought to be rubbed twice or thrice a-day with a little of the volatile liniment. This seldom fails to produce some good effects. At the same time the neck ought to be carefully covered with wool or flannel, to prevent the cold from penetrating the skin, as this application renders it very tender. Many other external applications are recommended in this disease, but there is none preferable to a common poultice of bread and milk.

Some recommend the gum guaiacum as a specific in this dis-disease. Half a drachm of the gum in powder may be made into an electuary with the rob of elder-berries, or the jelly of currants for a dose, and repeated occasionally.

Blisters upon the neck or behind the ears in violent inflammations of the throat are very beneficial; and in bad cases it will be necessary to lay a blister quite across the throat, so as to reach from ear to ear. After the plasters are taken off, the parts ought to be kept running by the application of the ointment, till the inflammation is gone; otherwise, upon their drying up, the patient will be in danger of a relapse.

When the patient has been treated as above, a suppuration seldom happens. This, however, is sometimes the case, in spite of all endeavours to prevent it. When the inflammation and swelling continue, and it is evident that a suppuration will ensue, it ought to be promoted by drawing the steam of warm water into the throat through a funnel, or the like. Soft poultices ought to be applied externally, and the patient may keep a roasted fig constantly in his mouth.

It sometimes happens, before the tumour breaks, that the swelling is so great externally to prevent any thing from getting down

into the ſtomach. In this caſe, the patient muſt inevitably periſh, unleſs he can be ſupported in ſome other way. This can only be done by nouriſhing clyſters of broth, or gruel with milk, &c. Patients have often been ſupported by theſe for ſeveral days, till the tumour has broke; and afterwards they have recovered.

Not only the ſwallowing, but the breathing, is often prevented by the tumour. In this caſe, nothing can ſave the patient's life, but opening the *trachea*, or windpipe. As that has been often done with ſucceſs, no perſon, in ſuch deſperate circumſtances, ought to heſitate a moment about the operation; but as it can only be performed by a ſurgeon, it is not neceſſary here to give any directions about it.

When a difficulty of ſwallowing is not attended with an acute pain or inflammation, it is generally owing to an obſtruction of the glands about the throat, and only requires that the part be kept warm, and the throat frequently gargled with ſomething that may gently ſtimulate the glands, as a decoction of figs with vinegar and honey; to which may be added a little muſtard, or a ſmall quantity of ſpirits. But this gargle is never to be uſed where there are ſigns of an inflammation. This ſpecies of *angina* has various names among the common people, as *the pap of the throat*, the falling down of the *almonds of the ears*, &c. Accordingly, to remove it, they lift the patient up by the hair of the head, and thruſt their fingers under his jaws, &c. all which practices are at beſt uſeleſs, and often hurtful.

Thoſe who are ſubject to inflammations of the throat, in order to avoid that diſeaſe, ought to live temperate. Such as do not chooſe to obſerve this rule, muſt have frequent recourſe to purging and other evacuations, to diſcharge the ſuperfluous humours. They ought likewiſe to beware of catching cold, and ſhould abſtain from aliment and medicines of an aſtringent or ſtimulating nature.

Violent exerciſe, by increaſing the motion and force of the blood, is apt to occaſion an inflammation of the throat, eſpecially if cold liquor be drank immediately after it, or the body ſuffered ſuddenly to cool. Thoſe who would avoid this diſeaſe, ought, therefore, after ſpeaking aloud, ſinging, running, drinking warm liquor, or doing any thing that may ſtrain the throat, or increaſe the circulation of the blood towards it, to take care to cool gradually, and to wrap ſome additional coverings about their necks.

I have often known perſons, who had been ſubject to ſore throats, entirely freed from that complaint by only wearing a ribband, or a bit of flannel conſtantly round their necks, or by wearing thicker ſhoes, a flannel waiſtcoat, or the like. Theſe may ſeem trifling, but they have great effect. There is danger indeed in leaving them off after perſons have been accuſtomed to them; but ſurely the inconveniency of uſing ſuch things for life, is not to be compared with the danger which may attend the neglect of them.

Sometimes, after an inflammation, the glands of the throat continue swelled, and become hard and callous. This complaint is not easily removed, and is often rendered dangerous by the too frequent application of strong stimulating and styptic medicines. The best method is to keep it warm, and to gargle it twice a-day with a decoction of figs, sharpened a little with the elixir or spirit of vitriol.

## *Of the Malignant Quinsey; Or, Putrid, Ulcerous Sore Throat.*

THIS kind of quinsey is but little known in the north of Britain, though, for some time past, it has been fatal in the more southern counties: It is frequently to be met with in America. Children are more liable to it than adults, females than males, and the delicate than those who are hardy and robust. It prevails chiefly in autumn, and is most frequent after a long course of damp or sultry weather.

CAUSES.——This is a contagious distemper, and generally communicated by infection. Whole families, and even entire villages, often receive the infection from one person. This ought to put people on their guard against going near such patients as labour under the disorder; as they endanger their own lives, and those of their friends and connexions. Whatever tends to produce putrid or malignant fevers, may occasion the putrid ulcerous sore throat, as unwholesome air, damaged provisions, neglect of cleanliness, &c.

SYMPTOMS.——It begins with alternate fits of shivering and heat. The pulse is quick, but low and unequal, and generally continues so through the whole course of the disease. The patient complains greatly of weakness and oppression of the breast; his spirits are low, and he is apt to faint away when set upright; he is troubled with a nausea, and often with a vomiting or purging. The two latter are most common in children. The eyes appear red and watery, and the face swells. The urine is at first pale and crude; but, as the disease advances, it turns more of a yellowish colour. The tongue is white, and generally moist, which distinguishes this from an inflammatory disease. Upon looking into the throat, it appears swelled, and of a florid red colour. Pale or ash-coloured spots, are here and there interspersed, and sometimes one broad patch or spot, of an irregular figure, and pale white colour, surrounded with florid red, only appears. These whitish spots or sloughs cover so many ulcers.

An efflorescence, or eruption upon the neck, arms, breast, and fingers, about the second or third day, is a common symptom of this disease. When it appears, the purging and vomiting generally cease.

There is often a slight degree of delirium; the face frequently appears bloated, and the inside of the nostrils red and inflamed. The patient complains of a disagreeable putrid smell, and his breath is very offensive.

The putrid, ulcerous sore throat may be distinguished from the inflammatory by the vomiting and looseness with which it is generally ushered in; the foul ulcers in the throat covered with a white or livid coat; and by the excessive weakness of the patient; with other symptoms of a putrid fever.

Unfavourable symptoms are, an obstinate purging, extreme weakness, dimness of the sight, a livid or black colour of the spots, and frequent shiverings, with a weak, fluttering pulse. If the eruption upon the skin suddenly disappears, or becomes of a livid colour, with a discharge of blood from the nose or mouth, the danger is very great.

If a gentle sweat break out about the third or fourth day, and continue with a slow, firm, and equal pulse; if the sloughs cast off in a kindly manner, and appear clean and florid at the bottom; and if the breathing is soft and free, with a lively colour of the eyes, there is reason to hope for a salutary crisis.

REGIMEN.——The patient must be kept quiet, and for the most part in bed, as he will be apt to faint when taken out of it. His food must be nourishing and restorative; as sago-gruel with red wine, jellies, strong broths, &c. His drink ought to be generous, and of an antiseptic quality; as red wine negus, white wine whey, and such like.

MEDICINE.——The medicine in this kind of quinsey is entirely different from that which is proper in the inflammatory. All evacuations, as bleeding, purging, &c. which weaken the patient, must be avoided. Cooling medicines, as nitre and cream of tartar, are likewise hurtful. Strengthening cordials alone can be used with safety; and these ought never to be neglected.

If at the beginning there is a great nausea, or inclination to vomit, the patient must drink an infusion of green tea, camomile flowers, or *carduus benedictus*, in order to cleanse the stomach. If these are not sufficient, he may take a few grains of the powder of ipecacuanha, or any other gentle vomit.

If the disease is mild, the throat may be gargled with an infusion of sage and rose leaves, to a gill of which may be added a spoonful or two of honey, and as much vinegar as will make it agreeably acid; but when the symptoms are urgent, the sloughs large and thick, and the breath very offensive, the following gargle may be used:

To six or seven ounces of the pectoral decoction, when boiling, add half an ounce of contrayerva-root; let it boil for some time, and afterwards strain the liquor; to which add two ounces of white wine vinegar, an ounce of fine honey, and an ounce of the

tincture of myrrh. This ought to be used as a gargle, and a little of it should frequently be injected, with a syringe to clean the throat, before the patient takes any meat or drink. This method is peculiarly necessary for children, who cannot use a gargle.

It will be of great benefit if the patient frequently receives into his mouth, through an inverted funnel, or proper inhaler, the steams of warm vinegar, myrrh, and honey.

But when the putrid symptoms run high, and the disease is attended with danger, the only medicine that can be depended upon is the Peruvian bark. It may be taken in substance, if the patient's stomach will bear it. If not, an ounce of bark grossly powdered, with two drachms of Virginian snake-root, may be boiled in an English pint and a half of water, to half a pint; to which a tea-spoonful of the elixir of vitriol may be added, and an ordinary tea-cupful of it taken every three or four hours. Blisters are very beneficial in this disease, especially when the patient's pulse and spirits are low. They may be applied to the throat, behind the ears, or upon the back part of the neck.

Should the vomiting prove troublesome, it will be proper to give the patient two table-spoonfuls of the saline julep every hour. Tea made of mint and a little cinnamon will be very proper for his ordinary drink, especially if an equal quantity of red wine be mixed with it.

In case of a violent looseness, the size of a nutmeg of *diascordium* or six or eight drops of laudanum, according to the age of the patient, may be taken in cinnamon water two or three times a-day; the japonic confection may be taken two or three times a-day, or oftener if necessary.

If a discharge of blood from the nose happens, the steams of warm vinegar may be received up the nostrils frequently; and the drink must be sharpened with spirits of vitriol, or tincture of roses.

In case of a strangury, the belly must be fomented with warm water, and emollient anodyne clysters given three or four times a-day.

After the violence of the disease is over, the body should still be kept open with mild purgatives; as manna, senna, rhubarb, or the like.

If great weakness and dejection of spirits, or night-sweats, with other symptoms of a consumption, should ensue, we advise the patient to continue the use of the bark, with the elixir of vitriol, and take frequently a glass of generous wine. These, together with a milk-diet, and riding on horseback, are most likely for recovering his strength.

### *The Cynanche Parotidæa; Or, the Mumps.*

THIS diſeaſe is known, in America, under the appellation of the mumps: It is more particularly incident to children than to grown people; and afflicts the patient but once in his life: It is thought to be produced by contagion.

SYMPTOMS.——It comes on with a moderate fever: this is ſoon followed with a ſtiffneſs in the neck, and a ſwelling about the angle of the lower jaw. In a ſhort time, the ſwelling increaſes, and affects the whole neck; ſometimes one ſide only is affected, but generally both. It is not unfrequently attended with a ſlight difficulty in ſwallowing. Thoſe ſymptoms continue to increaſe until the third or fourth day. At length the fever ſubſides, the ſwelling recedes from the throat and neck; and the teſticles in men, and the breaſts in women, become affected in a ſimilar manner: for the moſt part, this gradually diſappears without much inconvenience; but when the ſwelling does not come on after that of the throat and neck, the fever often becomes conſiderable.

REGIMEN.——This complaint ſeldom requires much attention; the patient muſt confine himſelf to the houſe. The neck ſhould be defended from cold, by the application of flannel. The diet ſhould be ſpare, and the drink diluting.

MEDICINE.——The parts about the neck may be bathed with a mixture, conſiſting of half a table-ſpoonful of ſweet-oil, and ſixty drops of laudanum. The bowels muſt be kept open with cream of tartar and flower of ſulphur: but when the tumour has ſuddenly receded from the throat, in conſequence of cold, or any other cauſe, and the fever becomes conſiderable, with pain in the head, a full and hard pulſe, blood muſt be taken from the arm, and repeated as the ſymptoms may demand. A bliſter may alſo be applied to the fore or back part of the neck.

## CHAPTER XXXI.

### *Of Colds and Coughs.*

COLDS are the effect of an obſtructed perſpiration: Almoſt every cold is a kind of fever, which only differs in degree from ſome of thoſe already treated of.

No age, ſex, or conſtitution, is exempted from this diſeaſe neither can any medicine or regimen prevent it. The inhabitants of every climate are liable to catch cold, nor can the greateſt circumſpection defend them at all times from its attacks. Indeed,

if the human body could be kept conſtantly in an uniform degree of warmth, catching cold would be impoſſible: but as that cannot be effected by any means, the perſpiration muſt be liable to many changes. Such changes, when ſmall, do not affect the health; but, when great, they muſt prove hurtful.

When oppreſſion of the breaſt, a ſtuffing of the noſe, unuſual wearineſs, pain of the head, &c. give ground to believe that the perſpiration is obſtructed, or, in other words, that the perſon has caught cold, he ought immediately to leſſen his diet, at leaſt the uſual quantity of his ſolid food, and to abſtain from all ſtrong liquors. Inſtead of fleſh, fiſh, eggs, milk, and other nouriſhing diet, he may eat light bread-pudding, veal or chicken broth, panado, gruels, and ſuch-like. His drink may be water-gruel ſweetened with a little honey; an infuſion of balm or linſeed, ſharpened with the juice of orange or lemon; a decoction of barley and liquorice, with tamarinds, or any other cool, diluting, acid liquor. His ſupper ſhould be light; as ſmall poſſet or water-gruel, ſweetened with honey, and a little toaſted bread in it. If honey diſagrees with the ſtomach, the gruel may be ſweetened with treacle or coarſe ſugar, and ſharpened with the jelly of currants. Thoſe who have been accuſtomed to generous liquors, may take wine-whey inſtead of gruel, which may be ſweetened as above.

The patient ought to lie longer than uſual a-bed, and to encourage a gentle ſweat, which is eaſily brought on towards morning, by drinking tea, or any warm diluting liquor. I have often known this practice carry off a cold in one day, which, in all probability, had it been neglected, would have coſt the patient his life, or have confined him for ſome months. Would people ſacrifice a little time to eaſe and warmth, and practiſe a moderate degree of abſtinence when the firſt ſymptoms of a cold appear, moſt of the bad effects which flow from an obſtructed perſpiration might be prevented. But, after the diſeaſe has gathered ſtrength by delay, all attempts to remove it often prove vain. A pleuriſy, a peripneumony, or a fatal conſumption of the lungs, are the common effects of colds, which have either been totally neglected or treated improperly.

Many attempt to cure a cold, by getting drunk. But this, to ſay no worſe of it, is a very hazardous experiment. No doubt it may ſometimes ſucceed, by ſuddenly reſtoring the perſpiration; but when there is any degree of inflammation, which is frequently the caſe, ſtrong liquors, inſtead of removing the malady, increaſe it. By this means, a common cold may become an inflammatory fever.

When thoſe who labour for their daily bread catch cold, they cannot afford to loſe a day or two, in order to keep themſelves warm, and take a little medicine; by which means, the diſorder is often ſo aggravated, as to confine them for a long time, or even to render them ever after unable to ſuſtain hard labour. But even

ſuch of the labouring poor as can afford to take care of themſelves, are often too hardy to do it: they affect to diſpiſe colds, and as long as they can crawl about, ſcorn to be confined by what they call a common cold. Hence, colds deſtroy ſuch numbers of mankind. Like an enemy deſpiſed, they gather ſtrength from delay, till they become invincible. Often travellers, rather than loſe a day in the proſecution of their buſineſs, throw away their lives by purſuing their journey, even in the ſevereſt weather, with this diſeaſe upon them.

Colds may alſo be too much indulged. When a perſon, for every ſlight cold, ſhuts himſelf up in a warm room, and drinks great quantities of warm liquor, it may occaſion ſuch a general relaxation of the ſolids as will not be eaſily removed. It is, therefore, proper, when the diſeaſe will permit, and the weather is mild, to join to the regimen mentioned above, gentle exerciſe; as walking, riding on horſeback, or in a carriage, &c. An obſtinate cold, which no medicine can remove, will yield to gentle exerciſe and a proper regimen of the diet.

Bathing the feet and legs in warm water has a great tendency to reſtore perſpiration. But care muſt be taken that the water be not too warm, otherwiſe it will do hurt. It ſhould never be much warmer than the blood, and the patient ſhould go immediately to bed after uſing it. Bathing the feet in warm water, lying in bed, and drinking warm water-gruel, or other weak liquors, will ſooner take off a ſpaſm, and reſtore the perſpiration, than all the hot ſudorific medicines in the world. This is all that is neceſſary for removing a common cold; and if this courſe be taken at the beginning, it will ſeldom fail.

But when the ſymptoms do not yield to abſtinence, warmth, and diluting liquors, there is reaſon to fear the approach of ſome other diſeaſe; as an inflammation of the breaſt, an ardent fever, or the like. If the pulſe, therefore, be hard and frequent, the ſkin hot and dry, and the patient complains of his head or breaſt, it will be neceſſary to bleed, and to give the cooling powders recommended in the ſcarlet fever, every three or four hours, till they give a ſtool.

It will likewiſe be proper to put a bliſter on the back, to give two table-ſpoonfuls of the ſaline mixture every two hours, and, in ſhort, to treat the patient in all reſpects as for a ſlight fever. I have often ſeen this courſe, when obſerved at the beginning, remove the complaint in two or three day, when the patient had all the ſymptoms of an approaching ardent fever, or an inflammation of the breaſt.

The chief ſecret of preventing colds, lies in avoiding, as far as poſſible, all extremes either of heat or cold, and in taking care, when the body is heated, to let it cool gradually. Theſe and other circumſtances relating to this important ſubject, are fully treated of, under the article *Obſtructed Perſpiration*.

## *Of a Common Cough.*

A cough is generally the effect of a cold, which has either been improperly treated, or entirely neglected. When it proves obſtinate, there is always reaſon to fear the conſequences, as this ſhows a weak ſtate of the lungs, and is often the forerunner of a conſumption.

If the cough be violent, and the patient young and ſtrong, with a hard quick pulſe, bleeding will be proper; but in weak and relaxed habits, bleeding rather prolongs the diſeaſe. When the patient ſpits freely, bleeding is unneceſſary, and ſometimes hurtful, as it tends to leſſen that diſcharge.

When the cough is not attended with any degree of fever, and the ſpittle is viſcid and tough, ſharp pectoral medicines are to be adminiſtered; as gum ammoniac, ſquills, &c. Two table-ſpoonfuls of the ſolution of the gum ammoniac may be taken two or three times a-day, more or leſs, according to the age and conſtitution of the patient. Squills may be given various ways: two ounces of the vinegar, the oxymel, or the ſyrup, may be mixed with the ſame quantity of ſimple cinnamon-water, to which may be added, an ounce of common water and an ounce of balſamic ſyrup. Two table-ſpoonfuls of this mixture may be taken three or four times a-day.

A ſyrup made of equal parts of lemon-juice, honey, and ſugar-candy, is likewiſe very proper in this kind of cough. A table ſpoonful of it may be taken at pleaſure.

When the defluxion is ſharp and thin, theſe medicines rather do hurt. In this caſe, gentle opiates, oils, and mucilages, are more proper. A cup of an infuſion of wild poppy leaves, and marſh-mallow roots, or the flowers of colts-foot, may be taken frequently; or a tea-ſpoonful of the paregoric elixir may be put into the patient's drink twice a-day.

When a cough is occaſioned by acrid humours, tickling the throat and fauces, the patient ſhould keep ſome ſoft pectoral lozenges almoſt conſtantly in his mouth; as the liquorice cakes, barley-ſugar, the common balſmatic lozenges, Spaniſh juice, &c. Theſe blunt the acrimony of the humours, and, by taking off their ſtimulating quality, help to appeaſe the cough*.

* In a former edition, I recommended, for an obſtinate tickling cough, an oily emulſion, made with the paregoric elixir of the Edinburgh Diſpenſatory, inſtead of the common alkaline ſpirit. I have ſince been told by ſeveral practitioners, that they found it to be an excellent medicine in this diſorder, and every way deſerving of the character which I had given it. Where this elixir is not kept, its place may be ſupplied by adding to the common oily emulſion, an adequate proportion of the Thebaic tincture, or liquid laudanum.

In obſtinate coughs, proceeding from a flux of humours upon the lungs, it will often be neceſſary, beſides expectorating medicines, to have recourſe to iſſues, ſetons, or ſome other drain*. I have often obſerved the moſt happy effects from a Burgundy-pitch plaſter applied between the ſhoulders. I have ordered this ſimple remedy in the moſt obſtinate coughs, in a great number of caſes, and in many different conſtitutions, without ever knowing it fail to give relief, unleſs where there were evident ſigns of an ulcer in the lungs.

About the bulk of a nutmeg of Burgundy-pitch, may be ſpread thin upon a piece of ſoft leather, about the ſize of the hand, and laid between the ſhoulder-blades. It may be taken off and wiped every three or four days, and ought to be renewed once a fortnight or three weeks. This is, indeed, a cheap and ſimple medicine, and conſequently apt to be deſpiſed; but the *materia medica* does not afford an application more efficacious in almoſt every kind of cough. It has not indeed always an immediate effect; but, if kept on for ſome time, it will ſucceed where moſt other medicines fail.

The only inconveniency attending this plaiſter, is the itching which it occaſions; but ſurely this may be diſpenſed with, conſidering the advantage which the patient may expect to reap from the application. When the itching becomes very uneaſy, the plaiſter may be taken off, and the part rubbed with a dry cloth, or waſhed with a little warm milk and water. Some caution is neceſſary in diſcontinuing the uſe of ſuch a plaiſter; this, however, may be ſafely done by making it ſmaller by degrees, and at length quitting it altogether in a warm ſeaſon†.

But coughs proceed from many other cauſes beſides defluxions upon the lungs. In theſe caſes, the cure is not to be attempted by pectoral medicines. Thus, in a cough proceeding from a foulneſs and debility of the ſtomach, ſyrups, oils, mucilages, and all kinds of balſamic medicines do hurt. The *ſtomach cough* may be known from one that is owing to a fault in the lungs, by this, that in the latter the patient coughs whenever he inſpires, or draws in his breath fully; but in the former, that does not happen.

The cure of this cough depends chiefly upon cleanſing and ſtrengthening the ſtomach; for which purpoſe, gentle vomits and bitter purgatives are moſt proper. Thus, after a vomit or two, the ſacred tincture, as it is called, may be taken for a conſiderable

* The patient ſhould wear flannel next his ſkin, in order to promote perſpiration. (I. C.)

† Some complain that the pitch plaiſter adheres too faſt, while others find difficulty in keeping it on. This proceeds from the different kinds of pitch made uſe of, and likewiſe from the manner of making it. I generally find it anſwers beſt when mixed with a little bees-wax, and ſpread as cool as poſſible. The clear, hard, tranſparent pitch anſwers the purpoſe beſt.

time, in the dose of one or two table-spoonfuls, twice a-day, or as often as it is found necessary to keep the body gently open. People may make this tincture themselves, by infusing an ounce of *hiera picra** in an English pint of white wine, letting it stand a few days, and then straining it.

In coughs which proceed from a debility of the stomach, the bark is likewise of considerable service. It may either be chewed, taken in powder, or made into a tincture along with other stomachic bitters.

*A nervous cough* can only be removed by change of air, proper exercise, and gentle opiates. Instead of the saponaceous pill, the paragoric elixir, &c. which are only opium disguised, ten, fifteen, twenty, or twenty-five drops of liquid laudanum, more or less, as circumstances require, may be taken at bed time, or when the cough is most troublesome. Immersing the feet and hands in warm water will often appease the violence of a nervous cough.

When a cough is only the symptom of some other malady, it is in vain to attempt to remove it, without first curing the disease from which it proceeds. Thus, when a cough is occasioned by *teething*, keeping the body open, scarifying the gums, or whatever facilitates the cutting of the teeth, likewise appeases the cough. In like manner, when *worms* occasion a cough, such medicines as remove these vermin will generally cure the cough; as bitter purgatives, oily clysters, and such like.

Women during the last months of pregnancy, are often greatly afflicted with a cough, which is generally relieved by bleeding, and keeping the body gently open. They ought to avoid all flatulent food, and to wear a loose easy dress.

A cough is not only a symptom, but is often likewise the forerunner of diseases. Thus, the gout is frequently ushered in by a very troublesome cough, which affects the patient for some days before the coming on of the fit. This cough is generally removed by a paroxysm of the gout, which should therefore be promoted, by keeping the extremities warm, drinking warm liquors, and bathing the feet and legs frequently in lukewarm water.

## *Of the Whooping-Cough, or Chin-Cough.*

This cough seldom affects adults, but proves often fatal to children. Such children as live upon thin watery diet, who breathe wholesome air, and have too little exercise, are most liable to this disease, and generally suffer most from it.

The chin-cough is so well known, that a description of it is unnecessary. Whatever hurts the digestion, obstructs the perspira-

* See Appendix, Hiera Picra.

tion, or relaxes the ſolids, diſpoſes to this diſeaſe: conſequently, its cure muſt depend upon cleanſing and ſtrengthening the ſtomach, bracing the ſolids, and at the ſame time promoting perſpiration and the different ſecretions.

The diet muſt be light, and of eaſy digeſtion; for children, good bread made into pap or pudding, chicken-broth, with other light ſpoon-meats, are proper; but thoſe who are farther advanced, may be allowed ſago-gruel, and if the fever be not high, a little boiled chicken, or other white meats. The drink may be hyſſop, or pennyroyal tea, ſweetened with honey or ſugar-candy, ſmall wine-whey; or, if the patient be weak, he may ſometimes be allowed a little negus.

One of the moſt effectual remedies in the chin-cough, is change of air. This often removes the malady, even when the change ſeems to be from a purer to a leſs wholeſome air. This may in ſome meaſure depend on the patient's being removed from the place where the infection prevails. Moſt of the diſeaſes of children are infectious; nor is it at all uncommon to find the chin-cough prevailing in one town or village, when another, at a very ſmall diſtance, is quite free from it. But whatever be the cauſe, we are ſure of the fact. No time ought therefore to be loſt in removing the patient at ſome diſtance from the place where he caught the diſeaſe, and, if poſſible, into a more pure and warm air*.

When the diſeaſe proves violent, and the patient is in danger of being ſuffocated by the cough, he ought to be bled, eſpecially if there be a fever with a hard full pulſe. But as the chief intention of bleeding is to prevent an inflammation of the lungs, and to render it more ſafe to give vomits, it is ſeldom neceſſary to repeat the operation; yet if there are ſymptoms of an inflammation of the lungs, a ſecond or even a third bleeding may be requiſite.

It is generally reckoned a favourable ſymptom when a fit of coughing makes the patient vomit. This cleanſes the ſtomach, and greatly relieves the cough. It will therefore be proper to promote this diſcharge, either by ſmall doſes of ipecacuanha, or the vomiting julep recommended in the Appendix†.

It is very difficult to make children drink after a vomit. I have often ſeen them happily deceived, by infuſing a ſcruple or half a drachm of the powder of ipecacuanha in a tea-pot, with half an Engliſh pint of boiling water. If this be diſguiſed with a few drops of milk and a little ſugar, they will imagine it tea, and drink it very greedily. A ſmall tea-cupful of this may be given every

* Some think the air ought not to be changed till the diſeaſe is on the decline; but there ſeems to be no ſufficient reaſon for this opinion, as patients have been known to reap benefit from a change of air at all periods of the diſeaſe. It is not ſufficient to take the patient out daily in a carriage. This ſeldom anſwers any good purpoſe; but often does hurt, by giving him cold.

† See Appendix, Vomiting Julep.

quarter of an hour, or rather every ten minutes, till it operates. When the child begins to puke, there will be no occaſion for drinking any more, as the water already on the ſtomach will be ſufficient.

Vomits not only cleanſe the ſtomach, which in this diſeaſe is generally loaded with viſcid phlegm, but they likewiſe promote the perſpiration and other ſecretions, and ought therefore to be repeated according to the obſtinacy of the diſeaſe. They ſhould not however be ſtrong: gentle vomits frequently repeated are both leſs dangerous, and more beneficial than ſtrong ones.

The body ought to be kept gently open. The beſt medicines for this purpoſe are caſtor oil, or flour of ſulphur and cream of tartar. Theſe muſt be given in ſmall doſes, and repeated as occaſion requires.

Many people believe that oily, pectoral, and balſamic medicines poſſeſs wonderful virtues for the cure of the chin-cough, and accordingly exhibit them plentifully to patients of every age and conſtitution, without conſidering that every thing of this nature muſt load the ſtomach, hurt the digeſtion, and of courſe, aggravate the diſorder*.

Opiates are ſometimes neceſſary to allay the violence of the cough. For this purpoſe, a little of the ſyrup of poppies, or five, ſix, or ſeven drops of laudanum, according to the age of the patient, may be taken in a cup of hyſſop, pennyroyal tea, or ſugar and water, and repeated occaſionally†.

The garlic ointment is a well-known remedy in North-Britain for the Chin-cough. It is made by beating, in a mortar, garlic, with an equal quantity of hogs-lard. With this, the ſoles of the feet may be rubbed twice or thrice a-day; but the beſt method is to ſpread it upon a rag, and apply it in the form of plaiſter. It ſhould be renewed every night and morning at leaſt, as the garlic ſoon loſes its virtue. This is an exceeding good medicine, both in the chin-cough and in moſt other coughs of an obſtinate nature. It ought not however to be uſed when the patient is very hot or feveriſh, leſt it ſhould increaſe theſe ſymptoms.

The feet ſhould be bathed once every two or three days in lukewarm water; and a Burgundy-pitch plaiſter kept conſtantly between the ſhoulders. But when the diſeaſe proves very violent, it will be neceſſary, inſtead of it, to apply a bliſter, and to keep the part open for ſome time with iſſue-ointment.

* Dr. Duplanil ſays, he has ſeen many good effects from the kermes mineral in this complaint, the cough being frequently alleviated even by the firſt doſe. The doſe for a child of one year old, is a quarter of a grain diſſolved in a cup of any liquid, repeated two or three times a-day. For a child of two years, the doſe is half a grain; and the quantity muſt be thus increaſed, in proportion to the age of the patient.

† Some recommend the extract of hemlock as an extraordinary remedy in the whooping-cough; but ſo far as I have been able to obſerve, it is no way ſuperior to opium, which, when properly adminiſtered, will often relieve ſome of the moſt troubleſome ſymptoms of this diſorder.

When the diſeaſe is prolonged, and the patient is free from a fever, the bark, and other bitters, are the moſt proper medicines. The bark may either be taken in ſubſtance, or in a decoction or infuſion, as is moſt agreeable. For a child, ten, fifteen, or twenty grains, according to the age of the patient, may be given three or four times a-day. For an adult, half a drachm or two ſcruples will be proper. Some give the extract of the bark with cantharides; but to manage this, requires a conſiderable attention. It is more ſafe to give a few grains of caſtor along with the bark. A child of ſix or ſeven years of age, may take ſeven or eight grains of caſtor, with fifteen grains of powdered bark, for a doſe. This may be made into a mixture with two or three ounces of any ſimple diſtilled water, and a little ſyrup, and taken three or four times a-day.

## CHAPTER XXXII.

### *Inflammation of the Stomach, and other Viſcera.*

ALL inflammations of the bowels are dangerous, and require the moſt ſpeedy aſſiſtance; as they frequently end in a ſuppuration, and ſometimes in a mortification, which is certain death.

CAUSES.——An inflammation of the ſtomach may proceed from any of the cauſes which produce an inflammatory fever; as cold liquor drank while the body is warm, obſtructed perſpiration, or the ſudden ſtriking in of any eruption. It may likewiſe proceed from the acrimony of the bile, or from acrid and ſtimulating ſubſtances taken into the ſtomach; as ſtrong vomits or purges, corroſive poiſons, and ſuch-like. When the gout has been repelled from the extremities, either by cold or improper applications, it often occaſions an inflammation of the ſtomach. Hard or indigeſtible ſubſtances taken into the ſtomach, as bones, the ſtones of fruit, &c. may likewiſe have that effect.

SYMPTOMS.——It is attended with a fixed pain and burning heat in the ſtomach; great reſtleſſneſs and anxiety; a ſmall, quick, hard pulſe; vomiting, or, at leaſt, a naufea and ſickneſs; exceſſive thirſt; coldneſs of the extremities; difficulty of breathing; cold clammy ſweats; and ſometimes convulſions and fainting fits. The ſtomach is ſwelled, and often feels hard to the touch. One of the moſt certain ſigns of this diſeaſe is, the ſenſe of pain, which the patient feels upon taking any kind of food or drink, eſpecially if it be either too hot or too cold.

When the patient vomits every thing he eats or drinks, and is extremely reſtleſs, has a hiccup, with an intermitting pulſe, or frequent fainting fits, the danger is very great.

REGIMEN.——All acrimonious, heating, and irritating food

and drink are carefully to be avoided. The weakneſs of the patient may deceive the by-ſtanders, and induce them to give him wines, ſpirits, or other cordials; but theſe never fail to increaſe the diſeaſe, and often occaſion ſudden death. The inclination to vomit may likewiſe impoſe on the attendants, and make them think a vomit neceſſary; but that too is almoſt certain death.

The food muſt be light, thin, cool, and eaſy of digeſtion. It muſt be given in ſmall quantities, and ſhould neither be quite cold nor too hot. Thin gruel made of barley or oatmeal, light toaſted bread diſſolved in boiling water, or very weak chicken-broth, are the moſt proper. The drink ſhould be clear whey, barley-water, water in which toaſted bread has been boiled, or decoctions of emollient vegetables; as liquorice and marſh-mallow roots, ſarſaparilla, &c.

MEDICINE.——Bleeding in this diſeaſe is abſolutely neceſſary, and is almoſt the only thing that can be depended on. When the diſeaſe proves obſtinate, it will often be proper to repeat this operation ſeveral times, nor muſt the low ſtate of the pulſe deter us from doing ſo. The pulſe, indeed, generally riſes upon bleeding, and as long as that is the caſe, the operation is ſafe.

Frequent fomentations with lukewarm water, or a decoction of emollient vegetables, are likewiſe beneficial. Flannel cloths dipped in theſe muſt be applied to the region of the ſtomach, and removed as they grow cool. They muſt neither be applied too warm, nor be ſuffered to continue till they become quite cold, as either of theſe extremities would aggravate the diſeaſe.

The feet and legs ought likewiſe to be frequently bathed in lukewarm water, and warm bricks or poultices may be applied to the ſoles of the feet. The warm bath, if it can be conveniently uſed, will be of great ſervice.

In this, and all other inflammations of the bowels, an epiſpaſtic, or bliſter, applied over the part affected, is one of the beſt remedies. I have often uſed it, and do not recollect one inſtance wherein it did not give relief to the patient.

The only internal medicines which we venture to recommend in this diſeaſe, are mild clyſters. Theſe may be made of warm water, or thin water-gruel; and if the patient is coſtive, a little ſweet-oil, honey, or manna, may be added. Clyſters anſwer the purpoſe of an internal fomentation, while they keep the body open, and at the ſame time nouriſh the patient, who is often in this diſeaſe unable to retain any food upon his ſtomach. For theſe reaſons, they muſt not be neglected, as the patient's life may depend on them.

## *Inflammation of the Inteſtines.*

THIS is one of the moſt painful and dangerous diſeaſes that mankind are liable to. It generally proceeds from the ſame *cauſes* as the inflammation of the ſtomach; alſo, from coſtiveneſs, worms, eating unripe fruits, or great quantities of nuts, drinking hard windy malt liquors, as ſtale bottled beer or ale, four wines, cyder, &c. It may likewiſe be occaſioned by a rupture, by ſchirrous tumours of the inteſtines, or by their oppoſite ſides growing together.

The inflammation of the inteſtines is denominated *Iliac Paſſion*, *Enteritis*, *&c.* according to the name of the parts affected. The treatment is nearly the ſame whatever part of the inteſtinal canal be the ſeat of the diſeaſe; we ſhall therefore omit theſe diſtinctions, leſt they ſhould perplex the reader.

The *ſymptoms* here are nearly the ſame as in the foregoing diſeaſe; only the pain, if poſſible, is more acute, and is ſituated lower. The vomiting is likewiſe more violent, and ſometimes even the excrements, together with the clyſters and ſuppoſitories, are diſcharged by the mouth. The patient is continually belching up wind, and has often an obſtruction of his urine.

While the pain ſhifts, and the vomiting only returns at certain intervals, and while the clyſters paſs downwards, there is ground to hope; but when the clyſters and *feces* are vomited, and the patient is exceeding weak, with a low, fluttering pulſe, a pale countenance, and a diſagreeable or ſtinking breath, there is great reaſon to fear that the conſequences will prove fatal. Clammy ſweats, black fœtid ſtools, with a ſmall intermitting pulſe, and a total ceſſation of pain, are ſigns of a mortification already begun, and of approaching death.

REGIMEN.——The regimen is in general the ſame as in an inflammation of the ſtomach. The patient muſt be kept quiet, avoiding cold, and all violent paſſions of the mind. His food ought to be very light, and given in ſmall quantities; his drink weak and diluting; as clear whey, barley-water, and ſuch-like.

MEDICINE.——Bleeding in this, as well as in the inflammation of the ſtomach, is of the greateſt importance. It ſhould be performed as ſoon as the ſymptoms appear, and muſt be repeated according to the ſtrength of the patient, and the violence of the diſeaſe.

A bliſter is likewiſe to be applied immediately over the part where the moſt violent pain is. This not only relieves the pain of the bowels, but even clyſters and purgative medicines, which before had no effect, will operate when the bliſter begins to riſe.

Fomentations and laxative clyſters are by no means to be omitted. The patient's feet and legs ſhould frequently be bathed in warm water; and cloths dipped in it applied to his belly. Blad-

ders filled with warm water may likewiſe be applied to the region of the navel, and warm bricks, or bottles filled with warm water, to the ſoles of the feet. The clyſters may be made of barley-water or thin gruel with ſalt, and ſoftened with ſweet oil or freſh butter. Theſe may be adminiſtered every two or three hours, or oftener, if the patient continues coſtive.

If the diſeaſe does not yield to clyſters and fomentations, recourſe muſt be had to pretty ſtrong purgatives; but as theſe, by irritating the bowels, often increaſe their contraction, and by that means, fruſtrate their own intention, it will be neceſſary to join them with opiates, which, by allaying the pain, and relaxing the ſpaſmodic contractions of the guts, greatly aſſiſt the operation of purgatives.

What anſwers the purpoſe of opening the body very well, is a ſolution of the bitter purging ſalts. Two ounces of theſe may be diſſolved in an Engliſh pint of warm water, or thin gruel, and a teacupful of it taken every half hour till it operates. At the ſame time, fifteen, twenty, or twenty-five drops of laudanum may be given in a glaſs of pepper mint or ſimple cinnamon-water, to appeaſe the irritation, and prevent the vomiting, &c.

Acids have often a very happy effect in ſtaying the vomiting, and appeaſing the other violent ſymptoms of this diſeaſe. It will therefore be of uſe to ſharpen the patient's drink with cream of tartar, juice of lemon; or, when theſe cannot be obtained, with vinegar.

But it often happens that no liquid whatever will ſtay on the ſtomach. In this caſe, the patient muſt take purging pills. I have generally found the following anſwer very well: Take jalap in powder, and vitriolated tartar, of each half a drachm, opium one grain, Caſtile ſoap as much as will make the maſs fit for pills. Theſe muſt be taken at one doſe, and if they do not operate in a few hours, the doſe may be repeated.

If a ſtool cannot be procured by any of the above means, it will be neceſſary to immerſe the patient in warm water up to the breaſt. I have often ſeen this ſucceed when other means had been tried in vain. The patient muſt continue in the water as long as he can eaſily bear it without fainting, and if one immerſion has not the deſired effect, it may be repeated as ſoon as the patient's ſtrength and ſpirits are recruited. It is more ſafe for him to go frequently into the bath, than to continue too long at a time; and it is often neceſſary to repeat it ſeveral times before it has the deſired effect.

It has ſometimes happened, after all other means of procuring a ſtool had been tried to no purpoſe, that this was brought about by immerſing the patient's lower extremities in cold water, or making him walk upon a wet pavement, and daſhing his legs and thighs with cold water. This method, when others fail, at leaſt

merits a trial. It is indeed attended with ſome danger; but a doubtful remedy is better than none.

In deſperate caſes, it is common to give quickſilver. This may be given to the quantity of ſeveral ounces, or even a pound, but ſhould not exceed that *. When there is reaſon to ſuſpect a mortification of the guts, this medicine ought not to be tried. In that caſe, it cannot cure the patient, and will only haſten his death. But when the obſtruction is occaſioned by any cauſe that can be removed by force, quickſilver is not only a proper medicine, but the beſt that can be adminiſtered, as it is the fitteſt body we know for making its way through the inteſtinal canal.

If the diſeaſe proceeds from a rupture, the patient muſt be laid with his head very low, and the inteſtines returned by gentle preſſure with the hand. If this, with fomentations and clyſters, ſhould not ſucceed, recourſe muſt be had to a ſurgical operation, which may give the patient relief.

Such as would avoid this excruciating and dangerous diſeaſe, muſt take care never to be too long without a ſtool. Some who have died of it, have had ſeveral pounds of hard dry *fæces* taken out of their guts. They ſhould likewiſe beware of eating too freely of ſour or unripe fruits, or drinking ſtale windy liquors. &c. I have known it brought on by living too much on baked fruits, which are ſeldom good. It likewiſe proceeds frequently from cold caught by wet clothes, &c. but eſpecially from wet feet.

## *Of the Colic.*

THE colic has a great reſemblance to the two preceding diſeaſes, both in its ſymptoms and method of cure. It is generally attended with coſtiveneſs and acute pain of the bowels; and requires diluting diet, evacuations, fomentations, &c.

Colics are variouſly denominated according to their cauſes, as the *flatulent*, the *bilious*, the *hyſteric*, the *nervous*, &c. As each of theſe require a particular method of treatment, we ſhall point out their moſt general ſymptoms, and the means to be uſed for their relief.

The *flatulent*, or wind-colic, is generally occaſioned by an indiſcreet uſe of unripe fruits, meats of hard digeſtion, windy vegetables, fermenting liquors, and ſuch like. It may likewiſe proceed from an obſtructed perſpiration, or catching cold. Delicate people, whoſe digeſtive powers are weak, are moſt liable to this kind of colic.

* When quickſilver is given in too large quantities, it defeats its own intention, as it pulls down the bottom of the ſtomach, which prevents it getting over the pylorus. In this caſe, the patient ſhould be hung up by the heels, in order that the quickſilver may be diſcharged by his mouth.

The flatulent colic may either affect the ſtomach or inteſtines. It is attended with a painful ſtretching of the affected part. The patient feels a rumbling in his guts, and is generally relieved by a diſcharge of wind, either upwards or downwards. The pain is ſeldom confined to any particular part, as the vapour wanders from one diviſion of the bowels to another till it finds a vent.

When the diſeaſe proceeds from windy liquor, green fruit, ſour herbs, or the like, the beſt medicine, on the firſt appearance of the ſymptoms, is a dram of brandy, gin, or any good ſpirits.* The patient ſhould likewiſe ſit with his feet upon a warm hearth ſtone, or apply warm bricks to them; and warm cloths may be applied to his ſtomach and bowels.

This is the only colic wherein ardent ſpirits, ſpiceries, or any thing of a hot nature, may be ventured upon. Nor indeed are they to be uſed here unleſs at the very beginning, before any ſymptoms of inflammation appear. We have reaſon to believe, that a colic, occaſioned by wind or flatulent food, might always be cured by ſpirits and warm liquors, if taken immediately upon perceiving the firſt uneaſineſs; but when the pain has continued for a conſiderable time, and there is reaſon to fear an inflammation of the bowels already begun, all hot things are to be avoided as poiſon, and the patient is to be treated in the ſame manner as for the inflammation of the inteſtines.

Several kinds of food, as honey, eggs, &c. occaſion colics in ſome particular conſtitutions. I have generally found the beſt method of cure for theſe was, to drink plentifully of ſmall diluting liquors, as water-gruel, ſmall poſſet, water with toaſted bread ſoaked in it, &c.

Colics which proceed from exceſs and indigeſtion, generally cure themſelves, by occaſioning vomiting or purging. Theſe diſcharges are not to be ſtopped, but promoted by drinking plentifully of warm water, or weak poſſet. When their violence is over, the patient may take a doſe of ſalts or caſtor-oil, to carry off the dregs of his debauch.

Colics occaſioned by wet feet, or catching cold, may generally be removed at the beginning, by bathing the feet and legs in warm water, and drinking ſuch warm diluting liquors as will promote the perſpiration, as weak wine-whey, or water-gruel, with a ſmall quantity of ſpirits in it.

Thoſe flatulent colics, which prevail ſo much among country people, might generally be prevented, were they to change their clothes when they get wet. They ought likewiſe to take a dram,

* Theſe generally afford relief, but the greateſt diſadvantage attending this practice is, that the patient is apt to become intoxicated, and liable to fall into the practice of frequent inebriation. On this account, a doſe of laudanum may be ſubſtituted, which is not quite ſo faſcinating to the palate, as for the patient to wiſh a repetition, without an abſolute neceſſity. (I. C.)

or drink ſome warm liquor after eating any kind of green traſh. We do not recommend dram-drinking, but in this caſe, ſpirits prove a real medicine, and the beſt that can be adminiſtered. A glaſs of good pepper-mint water will have nearly the ſame effect as a glaſs of brandy, and, in ſome caſes, is rather to be preferred.

The *bilious* colic is attended with very acute pains about the region of the navel. The patient complains of great thirſt, and is generally coſtive. He vomits a hot, bitter, yellow-coloured bile, which being diſcharged, ſeems to afford ſome relief, but is quickly followed by the ſame violent pain as before. As the diſtemper advances, the propenſity to vomit ſometimes increaſes, ſo as to become almoſt continual, and the proper motion of the inteſtines is ſo far perverted, that there are all the ſymptoms of an impending iliac paſſion.

If the patient be young and ſtrong, and the pulſe full and frequent, it will be proper to bleed. After which give forty drops of laudanum, and adminiſter clyſters to open the bowels.—Clear whey or gruel, ſharpened with the juice of lemon, or cream of tartar, muſt be drank freely. Small chicken broth, with a little manna diſſolved in it, or a ſlight decoction of tamarinds, are likewiſe very proper, or any other thin, acid, opening liquor.

Beſides bleeding and plentiful dilution, it will be neceſſary to foment the belly with cloths dipped in warm water; and if this ſhould not ſucceed, the patient muſt be immerſed up to the breaſt in warm water.

In the bilious colic, the vomiting is often very difficult to reſtrain. When this happens, the patient may drink a decoction of toaſted bread, or an infuſion of garden-mint in boiling water. Should theſe not have the deſired effect, the ſaline draught, with a few drops of laudanum in it, may be given, and repeated according to the urgency of the ſymptoms. A ſmall quantity of Venice treacle may be ſpread in form of a cataplaſm, and applied to the pit of the ſtomach. Clyſters, with a proper quantity of Venice treacle or liquid laudanum in them, may likewiſe be frequently adminiſtered.

Such as are liable to frequent returns of the bilious colic ſhould uſe fleſh ſparingly, and live chiefly upon a light vegetable diet. They ſhould take frequently a doſe of cream of tartar with tamarinds, or any other cool acid purge.

The *hyſteric* colic bears a great reſemblance to the bilious. It is attended with acute pains about the region of the ſtomach, vomiting, &c. But what the patient vomits, in this caſe, is commonly of a greeniſh colour. There is a great ſinking of the ſpirits, with dejection of mind and difficulty of breathing, which are the characteriſtic ſymptoms of this diſorder. Sometimes it is accompanied with the jaundice, but this generally goes off of its own accord in a few days.

In this colic, all evacuations, as bleeding, purging, vomiting,

In this colic, all evacuations, as bleeding, purging, vomiting, &c. do hurt. Every thing that weakens the patient, or ſinks the ſpirits, is to be avoided. If the vomiting ſhould prove violent, lukewarm water, or ſmall poſſet, may be drank to cleanſe the ſtomach. Afterwards the patient may take fifteen, twenty, or twenty-five drops of liquid laudanum in a glaſs of cinnamon water. This may be repeated every ten or twelve hours till the ſymptoms abate.

The patient may likewiſe take four or five of the fœtid pills every ſix hours, and drink a cup of penny-royal tea after them. If aſafœtida ſhould prove diſagreeable, which is ſometimes the caſe, a tea-ſpoonful of the tincture of caſtor in a cup of penny-royal tea, or thirty or forty drops of the balſam of Peru, dropped upon a bit of loaf-ſugar, may be taken in its ſtead. The anti-hyſteric plaiſter may alſo be uſed, which has often a good effect *.

The *nervous* colic prevails among miners, ſmelters of lead, plumbers, the manufacturers of white lead, &c. It is very common in the cyder counties of England, and is ſuppoſed to be occaſioned by the leaden veſſels uſed in preparing that liquor. In the Weſt-Indies it is termed the dry belly-ach.

No diſeaſe of the bowels is more excruciating than this. Nor is it ſoon at an end. I have known it continue eight or ten days with very little intermiſſion, the body all the while continuing bound in ſpite of medicine, yet at length yield, and the patient recover†. It generally leaves the patient weak, and often ends in a palſy.

The general treatment of this diſeaſe is nearly the ſame with that of the iliac paſſion, or inflammation of the guts. The body is to be opened by mild purgatives given in ſmall doſes, and frequently repeated, and their operation muſt be aſſiſted by ſoft oily clyſters, fomentations, &c. Caſtor-oil is reckoned peculiarly proper in this diſeaſe. It may both be mixed with the clyſters and given by the mouth.

Barbadoes tar is ſaid to be an efficacious medicine in this complaint. It may be taken to the quantity of two drachms three times a day, or oftener if the ſtomach will bear it. This tar, mixed with an equal quantity of ſtrong rum, is likewiſe proper for rubbing the ſpine, in caſe any tingling, or other ſymptoms of a palſy are felt. When the tar cannot be obtained, the back may be rubbed with ſtrong ſpirits, or a little oil of nutmegs or of roſemary.

If the patient remains weak and languid after this diſeaſe, he muſt take exerciſe on horſeback, and uſe an infuſion of the bark in wine. When the diſeaſe ends in a palſy, the bath-waters are extremely proper.

* See Appendix, Anti-hyſteric plaiſter.

† As the ſmoke of tobacco thrown into the bowels will often procure a ſtool, when all other means have failed, an apparatus for this purpoſe ought to be kept by every ſurgeon. It may be purchaſed at a ſmall expenſe, and will be of ſervice in ſeveral other caſes, as the recovery of drowned perſons, &c.

To avoid this kind of colic, people muſt ſhun all four fruits, acids, auſtere liquors, &c. Thoſe who work in lead ought never to go to their buſineſs faſting, and their food ſhould be oily or fat. They may take a glaſs of ſallad oil, with a little brandy or rum every morning, but ſhould never take ſpirits alone. Liquid aliment is beſt for them; as fat broths, &c. but low living is bad. They ſhould frequently go a little out of the tainted air; and ſhould never ſuffer themſelves to be coſtive. In the Weſt-Indies, and on the coaſt of Guinea, it has been found of great uſe, for preventing this colic, to wear a piece of flannel round the waiſt, and to drink an infuſion of ginger by way of tea.

Sundry other kinds of this diſeaſe might be mentioned, but too many diſtinctions perplex the reader. Thoſe already mentioned are the moſt material, and ſhould be attended to, as their treatment is very different. But even perſons who are not in a condition to diſtinguiſh very accurately in theſe matters, may be of ſervice to patients in colics of every kind, by only obſerving the following general rules, *viz.* To bathe the feet and legs in warm water; to apply bladders filled with warm water, or cloths dipped in it, to the ſtomach and bowels; to make the patient drink freely of diluting mucilaginous liquors; and to give him an emollient clyſter every two or three hours. Should theſe not ſucceed, the patient ought to be immerſed in warm water.

## *Inflammation of the Kidneys.*

CAUSES.——This diſeaſe may proceed from any of thoſe cauſes which produce an inflammatory fever. It may likewiſe be occaſioned by wounds or bruiſes of the kidneys; ſmall ſtones or gravel lodging within them; by ſtrong diuretic medicines; as ſpirits of turpentine, tincture of cantharides, &c. Violent motion, as hard riding or walking, eſpecially in hot weather, or whatever drives the blood too forcibly into the kidneys, may occaſion this malady. It may proceed from lying too ſoft, too much on the back, involuntary contractions, or ſpaſms, in the urinary veſſels, &c.

SYMPTOMS.——There is a ſharp pain about the region of the kidneys, with ſome degree of fever, and a ſtupor or dull pain in the thigh of the affected ſide. The urine is at firſt clear, and afterwards of a reddiſh colour; but in the worſt kind of the diſeaſe, it generally continues pale, is paſſed with difficulty, and commonly in ſmall quantities at a time. The patient feels great uneaſineſs when he endeavours to walk or ſit upright. He lies with moſt eaſe on the affected ſide, and has generally a naufea or vomiting, reſembling that in the colic.

This diſeaſe may be diſtinguiſhed from the colic, by the pain

being ſeated farther back, and by the difficulty of paſſing urine, with which it is conſtantly attended.

REGIMEN. ——Every thing of a heating or ſtimulating nature is to be avoided. The food muſt be thin and light; as panado, ſmall broths, with mild vegetables, and the like. Emollient and thin liquors muſt be plentifully drank; as clear whey, or balm-tea ſweetened with honey, decoctions of marſh-mallow roots, with barley and liquorice, &c. The patient, notwithſtanding the vomiting, muſt conſtantly keep ſipping ſmall quantities of theſe or other diluting liquors. Nothing ſo ſafely and certainly abates the inflammation, and expels the obſtructing cauſe, as copious dilution. The patient muſt be kept eaſy, quiet, and free from cold, as long as any ſymptoms of inflammation remain.

MEDICINE.——Bleeding is generally neceſſary, eſpecially at the beginning. Ten or twelve ounces may be let from the arm with a lancet, and if the pain and inflammation continue, the operation may be repeated in twenty-four hours, eſpecially if the patient be of a full habit. Leeches may be applied to the hæmorrhoidal veins, as a diſcharge from theſe will greatly relieve the patient.

Cloths dipped in warm water, or bladders filled with it, muſt be applied as near as poſſible to the part affected, and renewed as they grow cool. If the bladders be filled with a decoction of mallows and camomile flowers, to which a little ſaffron is added, and mixed with about a third part of new milk, it will be ſtill more beneficial.*

Emollient clyſters ought frequently to be adminiſtered; and if theſe do not open the body, a little ſalt and honey or manna may be added to them.

The ſame courſe is to be followed where gravel or ſtone is lodged in the kidney, but when the gravel or ſtone is ſeparated from the kidney, and lodges in the ureter,† it will be proper, beſides the fomentations, to rub the ſmall of the back with ſweet oil, and to give gentle diuretics; as juniper-water, ſweetened with the ſyrup of marſh-mallows: a tea-ſpoonful of the ſweet ſpirits of nitre, with fifteen or twenty drops of laudanum, may be given every three or four hours until the pain is mitigated, in a cup of the patient's drink. He ought likewiſe to take exerciſe on horſeback, or in a carriage, if he be able to bear it.

When the diſeaſe is protracted beyond the ſeventh or eighth day, and the patient complains of a ſtupor and heavineſs of the part, has frequent returns of chillneſs, ſhivering, &c. there is rea-

* The patient may go into the warm bath, which is more efficacious.

† The ureters are two long and ſmall canals, one on each ſide, which carry the urine from the baſon of the kidneys to the bladder. They are ſometimes obſtructed by ſmall ſtones or gravel falling down from the kidneys and lodging in them.

ſon to ſuſpect that matter is forming in the kidney, and that an abſceſs will enſue.

When matter in the urine ſhows that an ulcer is already formed in the kidney, the patient muſt be careful to abſtain from all acrid, ſour, and ſalted proviſions; and to live chiefly upon mild mucilaginous herbs and fruits, together with the broth of young animals, made with barley and common pot-herbs, &c. His drink may be whey, and butter-milk that is not ſour. The latter is by ſome reckoned a ſpecific remedy in ulcers of the kidneys. To anſwer this character, however, it muſt be drank for a conſiderable time. Chalybeate waters have likewiſe been found beneficial in this diſeaſe. This medicine is eaſily obtained, as it is found in every part of Britain. It muſt likewiſe be uſed for a conſiderable time, in order to produce any ſalutary effects.

Thoſe liable to frequent returns of inflammation, or obſtructions of the kidneys, muſt abſtain from wines, eſpecially ſuch as abound with tartar; and their food ought to be light, and of eaſy digeſtion. They ſhould uſe moderate exerciſe, and ſhould not lie too hot, nor too much on their back.

## *Inflammation of the Bladder.*

The inflammation of the bladder proceeds, in a great meaſure, from the ſame cauſes as that of the kidneys. It is known by an acute pain towards the bottom of the belly*, and difficulty of paſſing urine, with ſome degree of fever, a conſtant inclination to go to ſtool, and a perpetual deſire to make water.

This diſeaſe muſt be treated on the ſame principles as the preceding. The diet muſt be light, and thin, and the drink of a cooling nature. Bleeding is very proper at the beginning, and in robuſt conſtitutions, it will often be neceſſary to repeat it. The lower part of the belly ſhould be fomented with warm water, or a decoction of mild vegetables; and emollient clyſters ought frequently to be adminiſtered, &c.

The patient ſhould abſtain from every thing that is of a hot, acrid, and ſtimulating quality, and ſhould live entirely upon ſmall broths, gruels, or mild vegetables.

A ſtoppage of urine may proceed from other cauſes beſides an inflammation of the bladder; as a ſwelling of the hæmorrhoidal veins, hard *fæces* lodged in the *rectum*; a ſtone in the bladder; excreſcences in the urinary paſſages, a palſy of the bladder, hyſteric affections, &c. Each of theſe requires a particular treatment, which does not fall under our preſent conſideration; in all

* A violent pain in the lower part of the back is a common ſymptom in this diſeaſe.

of them, mild and gentle applications are the ſafeſt, as ſtrong diuretic medicines, or things of an irritating nature, generally increaſe the danger. Some perſons kill themſelves by introducing probes into the urinary paſſages, to remove, as they think, ſomewhat obſtructing the diſcharge of urine, and others bring on a violent inflammation of the bladder, by uſing ſtrong diuretics, as oil of turpentine, &c. for that purpoſe.

## *Inflammation of the Liver.*

THE liver is leſs ſubject to inflammation than moſt of the other viſcera, as in it the circulation is ſlower; but when an inflammation does happen, it is with difficulty removed, and often ends in a ſuppuration or ſchirrus.

CAUSES.——Beſides the common cauſes of inflammation, are the following, viz. exceſſive fatneſs, a ſchirrus of the liver itſelf, violent ſhocks from ſtrong vomits when the liver was before unſound, any thing that ſuddenly cools the liver after it has been greatly heated, ſtones obſtructing the courſe of the bile, drinking ſtrong wines and ſpirituous liquors, uſing hot ſpicy aliment, obſtinate hypochondriacal affections, &c.

SYMPTOMS.——This diſeaſe is known by a painful tenſion of the right ſide under the falſe ribs, attended with ſome degree of fever, a ſenſe of weight, or fulneſs of the part, difficulty of breathing, loathing of food, great thirſt, with a pale or yellowiſh colour of the ſkin and eyes.

The *ſymptoms* are various, according to the degree of inflammation, and to the particular part of the liver where the inflammation happens. Sometimes the pain is ſo inconſiderable, that an inflammation is not ſuſpected; but when it happens in the upper or convex part of the liver, the pain is more acute, the pulſe quicker, and the patient is often troubled with a dry cough, a hiccup, and a pain extending to the ſhoulder, with difficulty of lying on the left ſide, &c.

This diſeaſe may be diſtinguiſhed from the pleuriſy by the pain being leſs violent, ſeated under the falſe ribs, the pulſe not ſo hard, and by the difficulty of lying on the left ſide. It may be diſtinguiſhed from the hyſteric and hypochondriac diſorders by the degree of fever with which it is always attended.

This diſeaſe, if properly treated, is ſeldom mortal. A conſtant hiccuping, violent fever, and exceſſive thirſt, are bad ſymptoms. If it ends in a ſuppuration, and the matter cannot be diſcharged outwardly, the danger is great. When the ſchirrus of the liver enſues, the patient, if he obſerves a proper regimen, may nevertheleſs live a number of years tolerably eaſy; but if he indulge

in animal food and ſtrong liquors, or take medicines of an acrid or irritating nature, the ſchirrus will be converted into a cancer, which muſt infallibly prove fatal.

REGIMEN.——The regimen is in this as in other inflammatory diſorders. All hot things are to be carefully avoided, and cool diluting liquors, as whey, barley-water, &c. drank freely. The food muſt be light and thin, and the body, as well as the mind, kept eaſy and quiet.

MEDICINE.——Bleeding is proper at the beginning of this diſeaſe, and will often be neceſſary, even though the pulſe ſhould not feel hard, to repeat it. All violent purgatives are to be avoided; the body however muſt be kept gently open. A decoction of tamarinds, with a little honey or manna, will anſwer this purpoſe very well. The ſide affected muſt be fomented in the manner directed in the foregoing diſeaſes. Mild laxative clyſters ſhould be frequently adminiſtered; and, if the pain ſhould ſtill continue violent, a bliſter may be applied over the part affected.*

Medicines which promote the ſecretion of urine have a good effect. For this purpoſe, half a drachm of purified nitre, or a teaſpoonful of the ſweet ſpirits of nitre, may be taken in a cup of the patient's drink three or four times a-day.

When there is an inclination to ſweat, it ought to be promoted, but not by warm ſudorifics. The only thing to be uſed for that purpoſe, is plenty of diluting liquors drank about the warmth of the human blood. The patient in this caſe, as well as in all other topical inflammations, ought to drink nothing that is colder than the blood.

If the ſtools ſhould be looſe, and even ſtreaked with blood, no means muſt be uſed to ſtop them, unleſs they be ſo frequent as to weaken the patient. Looſe ſtools often prove critical, and carry off the diſeaſe.

If an abſcefs or impoſthume is formed in the liver, all methods ſhould be tried to make it break and diſcharge itſelf outwardly, as fomentations, the application of emollient poultices, ſuch as are made of bread and milk, or flaxſeed flour. Sometimes the matter of an abſcefs comes away in the urine, and ſometimes it is diſcharged by ſtool, but theſe are efforts of Nature which no means can promote. When the abſcefs burſts into the cavity of

* The moſt judicious practice in this diſeaſe, is, that which was firſt employed in the Faſt-Indies and China, where inflammations of the liver are almoſt as prevalent as intermittent fevers are in this country. After moderate evacuations, by bleeding and purging, or frequently without the uſe of either, they charge the ſyſtem with mercury as ſoon as poſſible, by rubbing two or three drachms of mercurial ointment on the internal parts of the legs and thighs every morning and evening; likewiſe on the right ſide of the abdomen, a little below the pained part. This muſt be continued until the gums are affected, and repeated until the ſymptoms diſappear. This practice I have known frequently ſucceed at Canton in China, and likewiſe in America. (I.C.)

the *abdomen* at large, death muſt enſue; nor will the event be more favourable when the abſceſs is opened by an inciſion, unleſs in caſes where the liver adheres to the *peritonæum*,* ſo as to form a bag for the matter, and prevent it from falling into the cavity of the *abdomen*; in which caſe, opening the abſceſs by a ſufficiently large inciſion, will probably ſave the patient's life.†

If the diſorder ſhould end in a ſchirrus, the patient muſt be careful to regulate his diet, &c. in ſuch a manner as not to aggravate the diſeaſe He muſt not indulge in fleſh, fiſh, ſtrong liquors, or any highly ſeaſoned or ſalted proviſions; but ſhould, for the moſt part, live on mild vegetables, as fruits and roots; taking gentle exerciſe, and drinking whey, barley-water, or butter milk. If he takes any thing ſtronger, it ſhould be fine mild ale, which is leſs heating than wines or ſpirits.

We ſhall take no notice of inflammations of the other viſcera. They muſt in general be treated upon the ſame principles as thoſe already mentioned. The chief rule with reſpect to all of them is, to let blood, to avoid every thing that is ſtrong, or of a heating nature, to apply warm fomentations to the part affected, and to cauſe the patient to drink a ſufficient quantity of warm diluting liquors.

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## CHAPTER XXXIII.

### *Of the Cholera Morbus, and other exceſſive Diſcharges from the Stomach and Bowels.*

THE *cholera morbus* is a violent purging and vomiting, attended with gripes, ſickneſs, and a conſtant deſire to go to ſtool. It comes on ſuddenly, and is moſt common in autumn. Hardly any diſeaſe kills more quickly than this, when proper means are not uſed in due time for removing it.

* When we have reaſons to ſuſpect that the convex ſurface of the liver does not adhere to the peritonæum of the abdomen, an inciſion ſhould be made in the moſt depending part, but not quite through the abdominal muſcles, in order to excite inflammation in the peritonæum, and produce adheſion. This practice takes off the reſiſtance, and allows the ſack of matter to preſs againſt the moſt yielding part of the peritonæum, which is in the direction of the wound, ſo that when the abſceſs burſts, it diſcharges itſelf by the inciſion. During the diſcharge of the matter, if the patient's ſtrength is much on the decline, it muſt be ſupported by cordials and tonic medicine, together with a ſmall allowance of animal food, ſuch as beef-ſteaks, &c. (I. C.)

† I know a gentleman who has had ſeveral abſceſſes of the liver opened, and is now a ſtrong and healthy man, though above eighty years of age.

CAUSES.——It is occaſioned by a redundancy and putrid acrimony of the bile; cold; food that eaſily turns rancid or ſour on the ſtomach; as butter, bacon, ſweet-meats, cucumbers, melons, cherries, and other cold fruits.* It is ſometimes the effect of ſtrong acrid purges or vomits, or of poiſonous ſubſtances taken into the ſtomach. It may likewiſe proceed from violent paſſions or affections of the mind; as fear, anger, &c.

SYMPTOMS.——It is generally preceded by a *cardialgia*, or heart-burn, ſour belchings, and flatulencies, with pain of the ſtomach and inteſtines. To theſe ſucceed exceſſive vomiting, and purging of green, yellow, or blackiſh coloured bile, with a diſtenſion of the ſtomach, and violent griping pains. There is likewiſe a great thirſt, with a very quick unequal pulſe, and often a fixed acute pain about the region of the navel. As the diſeaſe advances, the pulſe often ſinks ſo low as to become quite imperceptible, the extremities grow cold, or cramped, and are often covered with a clammy ſweat, the urine is obſtructed, and there is a palpitation of the heart. Violent hiccuping, fainting, and convulſions, are the ſigns of approaching death.

MEDICINE.——At the beginning of this diſeaſe, the efforts of Nature to expel the offending cauſe ſhould be aſſiſted, by promoting the purging and vomiting. For this purpoſe, the patient muſt drink freely of diluting liquors; as whey, butter-milk, warm water, thin water-gruel, ſmall poſſet, or, what is perhaps preferable to any of them, very weak chicken broth. This ſhould not only be drank plentifully to promote the vomiting, but a clyſter of it given every hour to promote the purging.

After theſe evacuations have been continued for ſome time, a decoction of toaſted oat-bread may be drank to ſtop the vomiting. The bread ſhould be toaſted till it is of a brown colour, and afterwards boiled in ſpring water. If oat-bread cannot be had, wheat-bread, or oat-meal well toaſted, may be uſed in its ſtead. If this does not put a ſtop to the vomiting, two table-ſpoonfuls of the ſaline julep, with ten drops of laudanum, may be taken every hour till it ceaſes.

The vomiting and purging ought never to be ſtopped too ſoon. As long as theſe diſcharges do not weaken the patient, they are ſalutary, and may be allowed to go on, or rather ought to be promoted. But when the patient is weakened by the evacuations, which may be known from the ſinking of his pulſe, &c. recourſe muſt immediately be had to opiates, as recommended above; to which may be added ſtrong wines, with ſpirituous cinnamon-waters, and other generous cordials. Warm negus, or ſtrong wine-whey, will likewiſe be neceſſary to ſupport the patient's ſpirits, and promote the perſpiration. His legs ſhould be bathed in warm water, and

* I have been twice brought to the gates of death by this diſeaſe, and both times it was occaſioned by eating rancid bacon.

afterwards rubbed with flannel cloths, or wrapped in warm blankets, and warm bricks applied to the soles of his feet. Flannels wrung out of warm spirituous fomentations should likewise be applied to the region of the stomach.*

When the violence of the disease is over, to prevent a relapse, it will be necessary for some time to continue the use of small doses of laudanum. Ten or twelve drops may be taken in a glass of wine, at least twice a day, for eight or ten days. The patient's food ought to be nourishing, but taken in small quantities, and he should use moderate exercise. As the stomach and intestines are generally much weakened, an infusion of the bark, or other bitters, in small wine, sharpened with the elixir vitriol, may be drank for some time.

Though physicians are seldom called in due time in this disease, they ought not to despair of relieving the patient even in the most desperate circumstances. Of this, I lately saw a very striking proof in an old man and his son, who had been both seized with it about the middle of the night. I did not see them till next morning, when they had much more the appearance of dead than of living men. No pulse could be felt; the extremities were cold and rigid; the countenance was ghastly, and the strength almost quite exhausted. Yet, from this deplorable condition, they were both recovered by the use of opiates and cordial medicines.

## *Of a Diarrhœa, or Looseness.*

A LOOSENESS, in many cases, is not to be considered as a disease, but rather as a salutary evacuation. It ought therefore never to be stopped, unless when it continues too long, or evidently weakens the patient. As this sometimes happens, we shall point out the most common causes of a looseness, with the proper method of treatment.

When a looseness is occasioned by catching cold, or an obstructed perspiration, the patient ought to keep warm, to drink freely of weak diluting liquors, to bathe his feet and legs in lukewarm water, to wear flannel next his skin, and to take every other method to restore the perspiration.

In a looseness which proceeds from excess or repletion, a vomit is the proper medicine. Vomits not only cleanse the stomach, but promote all the secretions, which render them of great importance in carrying off a debauch. Half a drachm of ipecacuanha in powder will answer this purpose very well. A day or two after the vomit, the same quantity of rhubarb may be taken, and repea-

* Should the vomiting continue obstinate, a blister or poultice composed of rye meal, flower of mustard, and vinegar, applied to the region of the stomach, and continued until it gives pain, or even forms a blister, is frequently attended with the best effects. (I. C.)

ted two or three times, if the looſeneſs continues. The patient ought to live upon light vegetable food, of eaſy digeſtion, and to drink whey, thin gruel, or barley-water.

A looſeneſs occaſioned by the obſtruction of any cuſtomary evacuation, generally requires bleeding. If that does not ſucceed, other evacuations may be ſubſtituted in the room of thoſe which are obſtructed. At the ſame time, every method is to be taken to reſtore the uſual diſcharges, as not only the cure of the diſeaſe, but the patient's life, may depend on this.

A periodical looſeneſs ought never to be ſtopped. It is always an effort of Nature to carry off ſome offending matter, which, if retained in the body, might have fatal effects. Children are very liable to this kind of looſeneſs, eſpecially while teething. It is, however, ſo far from being hurtful to them, that ſuch children generally get their teeth with leaſt trouble. If theſe looſe ſtools ſhould at any time prove ſour or griping, a tea-ſpoonful of magneſia alba, with four or five grains of rhubarb, may be given to the child in a little panado, or any other food. This, if repeated three or four times, will generally correct the acidity, and carry off the griping ſtools.

A looſeneſs which proceeds from violent paſſions or affections of the mind, muſt be treated with the greateſt caution. Vomits in this caſe are highly improper. Nor are purges ſafe, unleſs they be very mild, and given in ſmall quantities. Opiates, and other antiſpaſmodic medicines are moſt proper. Ten or twelve drops of laudanum may be taken in a cup of valerian or penny-royal tea, every eight or ten hours, till the ſymptoms abate. Eaſe, cheerfulneſs and tranquillity of mind, are here of the greateſt importance.

When a looſeneſs proceeds from acrid or poiſonous ſubſtances, taken into the ſtomach, the patient muſt drink large quantities of diluting liquors, with oil or fat broths, to promote vomiting and purging. Afterwards, if there be reaſon to ſuſpect that the bowels are inflamed, bleeding will be neceſſary. Small doſes of laudanum may likewiſe be taken to remove their irritation.

When the gout, repelled from the extremities, occaſions a looſeneſs, it ought to be promoted by gentle doſes of rhubarb, or other mild purgatives. The gouty matter is likewiſe to be ſolicited towards the extremities by warm fomentations, cataplaſms, &c. The perſpiration ought at the ſame time to be promoted by warm diluting liquors; as wine-whey, with ſpirits of hartſhorn, or a few drops of laudanum in it.

When a looſeneſs proceeds from worms, which may be known from the ſlimineſs of the ſtools, mixed with pieces of decayed worms, &c. medicines muſt be given to kill and carry off theſe vermin, as the powder of tin, with purges of rhubarb and calomel. Afterwards lime-water, either alone, or with a ſmall quantity of rhubarb infuſed, will be proper to ſtrengthen the bowels, and prevent the new generation of worms.

A looſeneſs is often occaſioned by drinking bad water. When this is the caſe, the diſeaſe generally proves epidemical. When there is reaſon to believe that this, or any other diſeaſe proceeds from the uſe of unwholeſome water, it ought immediately to be changed, or if that cannot be done, it may be corrected by mixing with it quick-lime, chalk, or the like.

In people, whoſe ſtomachs are weak, violent exerciſe immediately after eating, will occaſion a looſeneſs. The cure of this is obvious; yet it will be proper, beſides avoiding violent exerciſe, to uſe ſuch medicines as tend to brace and ſtrengthen the ſtomach, as infuſions of the bark, with other bitter and aſtringent ingredients, in white wine. Such perſons ought likewiſe to take frequently a glaſs or two of old red port, or good claret.*

From whatever cauſe a looſeneſs proceeds, when it is found neceſſary to check it, the diet ought to conſiſt of rice boiled with milk, and flavoured with cinnamon; rice-jelly; ſago, with red port; and the lighter ſorts of fleſh-meat roaſted. The drink may be thin water-gruel, rice-water, or weak broth, made from lean veal, or with a ſheep's head, as being more gelatinous than mutton, beef, or chicken-broth.

Perſons, who from a peculiar weakneſs, or too great an irritability of the bowels, are liable to frequent returns of this diſeaſe, ſhould live temperately, avoiding crude ſummer fruits, all unwholeſome food, and meats of hard digeſtion. They ought likewiſe to beware of cold, moiſture, or whatever may obſtruct the perſpiration, and ſhould wear flannel next their ſkin. All violent paſſions, as fear, anger, &c. are carefully to be guarded againſt.

## *Of Vomiting.*

VOMITING may proceed from various cauſes; as exceſs in eating and drinking; foulneſs of the ſtomach; the acrimony of the aliments; a tranſlation of the morbific matter of ulcers, of the gout, the eryſipelas, or other diſeaſes, to the ſtomach. It may likewiſe proceed from a looſeneſs having been too ſuddenly ſtopped; from the ſtoppage of any cuſtomary evacuation, as the bleeding piles, the menſes, &c. from a weakneſs of the ſtomach, the colic, the iliac paſſion, a rupture, a fit of the gravel, worms; or from any kind of poiſon taken into the ſtomach. It is an uſual ſymptom of injuries done to the brain; as contuſions, compreſſions, &c. It is likewiſe a ſymptom of wounds or inflammations of the diaphragm, inteſtines, ſpleen, liver, kidneys, &c.

Vomiting may be occaſioned by unuſual motions; as ſailing, being drawn backwards in a cart or coach, &c. by violent paſſions,

* After every aſtringent and tonic medicine has failed in the chronic diarrhœa of warm climates, a long voyage to ſea has entirely removed the complaint. (I. C.)

or by the idea of nauſeous or diſagreeable objects, eſpecially of ſuch things as have formerly produced vomiting. Sometimes it proceeds from a regurgitation of the bile into the ſtomach: in this caſe, what the patient vomits, is generally of a yellow or greeniſh colour, and has a bitter taſte. Perſons who are ſubject to nervous affections, are often ſuddenly ſeized with violent fits of vomiting. Laſtly, vomiting is a common ſymptom of pregnancy. In this caſe, it generally comes on about two weeks after the ſtoppage of the menſes, and continues during the firſt three or four months.

When vomiting proceeds from a foul ſtomach or indigeſtion, it is not a diſeaſe, but the cure of a diſeaſe. It ought therefore to be promoted by drinking lukewarm water, or thin gruel. If this does not put a ſtop to the vomiting, a doſe of ipecacuanha may be taken, and worked off with weak camomile tea.

When the retroceſſion of the gout, or the obſtruction of cuſtomary evacuations, occaſion vomiting, all means muſt be uſed to reſtore theſe diſcharges; or, if that cannot be effected, their place muſt be ſupplied by others, as bleeding, purging, bathing the extremities in warm water, opening iſſues, ſetons, perpetual bliſters, &c.

When vomiting is the effect of pregnancy, it may generally be mitigated by bleeding, and keeping the body gently open. The bleeding however ought to be in ſmall quantities at a time, and the purgatives ſhould be of the mildeſt kind, as figs, ſtewed prunes, manna, or ſenna. Pregnant women are moſt apt to vomit in the morning, immediately after getting out of bed, which is owing partly to the change of poſture, but more to the emptineſs of the ſtomach. It may generally be prevented by taking a diſh of coffee, tea, or ſome light breakfaſt in bed. Pregnant women who are afflicted with vomiting, ought to be kept eaſy both in body and mind. They ſhould neither allow their ſtomachs to be quite empty, nor ſhould they eat much at once. Cold water is a very proper drink in this caſe; if the ſtomach be weak, a little brandy may be added to it. If the ſpirits are low, and the perſon apt to faint, a ſpoonful of cinnamon water, with a little marmalade of quinces or oranges may be taken.

If vomiting proceeds from weakneſs of the ſtomach, bitters will be of ſervice. Bark infuſed in wine or brandy, with as much rhubarb as will keep the body gently open, is an excellent medicine in this caſe. The elixir of vitriol is alſo good. It may be taken in the doſe of fifteen or twenty drops, twice or thrice a-day, in a glaſs of wine or water. Habitual vomitings are ſometimes alleviated by making oyſters a principal part of diet.

A vomiting, which proceeds from acidities in the ſtomach, is relieved by alkaline purges. The beſt medicine of this kind is the magneſia alba, a tea-ſpoonful of which may be taken in a diſh of tea or a little milk, three or four times a day, or oftener if neceſſary, to keep the body open.

When vomiting proceeds from violent paſſions, or affections of the mind, all evacuations muſt be carefully avoided, eſpecially vomits. Theſe are exceedingly dangerous. The patient, in this caſe, ought to be kept perfectly eaſy and quiet, to have the mind ſoothed, and to take ſome gentle cordial, as negus, or a little brandy and water, to which a few drops of laudanum may occaſionally be added.

When vomiting proceeds from ſpaſmodic affections of the ſtomach, muſk, caſtor, and other antiſpaſmodic medicines, are of uſe. Warm and aromatic plaſters have likewiſe a good effect. The ſtomach-plaſter of the London or Edinburgh diſpenſatory may be applied to the pit of the ſtomach, or a plaſter of *theriaca*, which will anſwer rather better. Aromatic medicines may be taken inwardly, as cinnamon or mint-tea, wine with ſpiceries boiled in it, &c. The region of the ſtomach may be rubbed with æther, or, if that cannot be had, with ſtrong brandy, or other ſpirits. The belly ſhould be fomented with warm water, or the patient immerſed up to the breaſt in a warm bath.

The ſaline draughts taken in the act of effervescence are of ſingular uſe in ſtopping a vomiting, from whatever cauſe. Theſe may be prepared by diſſolving a drachm of the ſalt of tartar in an ounce and half of freſh lemon juice, and adding to it an ounce of peppermint-water, the ſame quantity of ſimple cinnamon-water, and a little white ſugar. This draught muſt be ſwallowed before the effervescence is quite over, and may be repeated every two hours, or oftener, if the vomiting be violent. A violent vomiting has ſometimes been ſtopped by cupping on the region of the ſtomach after all other means had failed.

As the leaſt motion will often bring on the vomiting again, even after it has been ſtopped, the patient muſt avoid all manner of action. The diet muſt be ſo regulated as to ſit eaſy upon the ſtomach, and nothing ſhould be taken that is hard of digeſtion. The patient ſhould not live entirely upon ſlops. Solid food, in this caſe, often ſits eaſier on the ſtomach than liquids.

## CHAPTER XXXIV.

### *Of the Diabetes, and other Diſorders of the Kidneys and Bladder.*

THE diabetes is a frequent and exceſſive diſcharge of urine. It is rare among young people; but often attacks perſons in the decline of life, eſpecially thoſe who follow the more violent employments, or have been hard drinkers in their youth.

CAUSES.——A diabetes is often the conſequence of acute diſeaſes, as fevers, fluxes, &c. where the patient has ſuffered by

exceſſive evacuations, or by great fatigue, as riding long journies upon a hard trotting horſe, carrying heavy burdens, running, &c. It may be brought on by hard drinking, or the uſe of ſtrong ſtimulating diuretic medicines, as tincture of cantharides, ſpirits of turpentine, and ſuch-like, or by drinking too great quantities of mineral waters. Many imagine that theſe will do them no ſervice, unleſs they be drank in great quantities, by which they often occaſion worſe diſeaſes than thoſe they intended to cure. This diſeaſe may proceed from too great a laxity of the organs which ſecrete the urine, from ſomething that ſtimulates the kidneys too much, or from a thin diſſolved ſtate of the blood, which makes too great a quantity of it run off by the urinary paſſages.

SYMPTOMS.——In a diabetes, the urine generally exceeds in quantity all the liquid food which the patient takes. It is thin and pale, of a ſweetiſh taſte, and an agreeable ſmell. The patient has a continual thirſt, with ſome degree of fever; his mouth is dry, and he ſpits frequently a frothy ſpittle. The ſtrength fails, the appetite decays, and the fleſh waſtes away till the patient is reduced to ſkin and bone. There is a heat of the bowels; and frequently the loins, teſticles, and feet are ſwelled.

This diſeaſe may generally be cured at the beginning; but after it has continued long, the cure becomes very difficult. In drunkards and very old people, a perfect cure is not to be expected.

REGIMEN.——Every thing that ſtimulates the urinary paſſages, or tends to relax the habit, muſt be avoided. For this reaſon, the patient ſhould live chiefly on ſolid food. His thirſt may be quenched with acids; as ſorrel, juice of lemon, or vinegar. The mucilaginous vegetables, as rice, ſago, and ſalop, with milk, are the moſt proper food. Of animal ſubſtances, ſhell-fiſh are to be preferred; as oyſters, crabs, &c. The drink may be Briſtol-water. When that cannot be obtained, lime-water, in which a due proportion of oak-bark has been macerated, may be uſed. The white decoction*, with iſinglaſs diſſolved in it, is a very proper drink.

The patient ought daily to take exerciſe, but it ſhould be ſo gentle as not to fatigue him. He ſhould lie upon a hard bed or matraſs. Nothing hurts the kidnies more than lying too ſoft. A warm, dry air, the fleſh-bruſh, and every thing that promotes perſpiration, is of ſervice. For this reaſon, the patient ought to wear flannel next his ſkin. A large ſtrengthening plaiſter may be applied to the back; or, what will anſwer better, a great part of the body may be wrapt in plaiſter.

MEDICINE.——Gentle purges, if the patient be not too much weakened by the diſeaſe, have a good effect. They may conſiſt of rhubarb, with cardamum ſeeds, or any other ſpiceries, infuſed in wine, and may be taken in ſuch quantity as to keep the body gently open.

* See Appendix, White Decoction.

The patient muſt next have recourſe to aſtringents and corroborants. Half a drachm of powder, made of equal parts of allum and the inſpiſſated juice commonly called Terra Japonica, may be taken four times a-day, or oftener, if the ſtomach will bear it. The allum muſt firſt be melted in a crucible; afterwards they may both be pounded together. Along with every doſe of this powder, the patient may take a tea-cupful of the tincture of roſes*.

If the patient's ſtomach cannot bear the allum in ſubſtance, whey may be made of it, and taken in the doſe of a tea-cupful three or four times a day. The allum-whey is prepared by boiling two Engliſh quarts of milk over a ſlow fire, with three drachms of allum, till the curd ſeparates.

Opiates are of ſervice in this diſeaſe, even though the patient reſts well. They take off ſpaſm and irritation, and at the ſame time leſſen the force of the circulation. Ten or twelve drops of laudanum may be taken in a cup of the patient's drink three or four times a-day.

The beſt corroborants which we know, are the bark and wine. A drachm of bark may be taken in a glaſs of red port or claret, three times a-day. The medicine will be both more efficacious and leſs diſagreeable, if fifteen or twenty drops of the acid elixir of vitriol be added to each doſe. Such as cannot take the bark in ſubſtance, may uſe the decoction, mixed with an equal quantity of red wine, and ſharpened as above.

There is a diſeaſe incident to labouring people in the decline of life, called *an Incontinency of Urine*. But this is very different from a diabetes, as the water paſſes off involuntarily by drops, and does not exceed the uſual quantity. This diſeaſe is rather troubleſome than dangerous. It is owing to a relaxation of the ſphincter of the bladder, and is often the effect of a palſy. Sometimes it proceeds from hurts, or injuries occaſioned by blows, bruiſes, preternatural labours, &c. Sometimes it is the effect of a fever. It may likewiſe be occaſioned by a long uſe of ſtrong diuretics. This diſeaſe may be mitigated by the uſe of aſtringent and corroborating medicines, ſuch as have been mentioned above; but I have never ſeen it cured.

In an incontinency of urine, from whatever cauſe, a piece of ſponge ought to be worn, or a bladder applied in ſuch a manner as to prevent the urine from galling and excoriating the parts.

## *Of a Suppreſſion of Urine.*

A SUPPRESSION of urine may proceed from various cauſes; as an inflammation of the kidneys, or bladder; ſmall ſtones or gravel lodging in the urinary paſſages, hard fæces lying in the

* See Appendix, Tincture of Roſes.

rectum, pregnancy, a ſpaſm or contraction of the neck of the bladder, clotted blood in the bladder itſelf, a ſwelling of the hæmorrhoidal veins, &c.

Some of theſe caſes require the catheter, both to remove the obſtructing matter, and to draw off the urine; but as this inſtrument can only be managed with ſafety by perſons ſkilled in ſurgery, we ſhall ſay nothing further of its uſe. A bougee may be uſed by any cautious hand, and will often ſucceed better than the catheter*. We chiefly recommend, in all obſtructions of urine, fomentations and evacuants. Bleeding, as far as the patient's ſtrength will permit, is neceſſary, eſpecially where there are ſymptoms of topical inflammation. Bleeding in this caſe not only abates the fever, by leſſening the force of the circulation, but, by relaxing the ſolids, it takes off the ſpaſm or ſtricture upon the veſſels which occaſioned the obſtruction.

After bleeding, fomentations muſt be uſed. Theſe may either conſiſt of warm water alone, or of decoctions of mild vegetables; as mallows, camomile-flowers, &c. Cloths dipped in theſe may either be applied to the part affected, or a large bladder filled with the decoction may be kept continually upon it. Some put the herbs themſelves into a flannel bag, and apply them to the part, which is far from being a bad method. Theſe continue longer warm than cloths dipped in the decoction, and at the ſame time keep the part equally moiſt.

In all obſtructions of urine, the body ought to be kept open. This is not however to be attempted by ſtrong purgatives, but by emollient clyſters, or gentle infuſions of ſenna and manna. Clyſters in this caſe not only open the body, but anſwer the purpoſe of an internal fomentation, and greatly aſſiſt in removing the ſpaſms of the bladder and parts adjacent†.

The food muſt be light, and taken in ſmall quantities. The drink may be weak broth, or decoctions and infuſions of mucilaginous vegetables, as marſh-mallow-roots or flax-ſeed. A tea-ſpoonful of the ſweet ſpirits of nitre, or a drachm of Caſtile ſoap, may be frequently put into the patient's drink.

Perſons ſubject to a ſuppreſſion of urine ought to live very temperate. Their diet ſhould be light and their liquor diluting. They ſhould avoid all acids and auſtere wines, ſhould take ſufficient exereiſe, lie hard, and avoid ſtudy and ſedentary occupations.

* In caſes of total ſuppreſſion of urine from ſtrictures in the urethra, when neither of theſe inſtruments could be introduced into the bladder, to evacuate the urine, I have ſucceeded in two inſtances out of three, by puncturing the bladder with a long trocar, immediately above the pubis, and evacuating the urine through the canula, until the obſtruction was removed by the uſe of bougees. (I. C.)

† When the bowels have been freely opened, emollient clyſters have the moſt happy effect. Theſe ſhould be injected every two or three hours, with one or two drachms of laudanum in each. (I. C.)

## *Of the Gravel and Stone.*

WHEN ſmall ſtones are lodged in the kidneys, or diſcharged along with the urine, the patient is ſaid to be afflicted with the gravel If one of theſe ſtones happens to make a lodgement in the bladder for ſome time, it accumulates freſh matter, and at length becomes too large to paſs off with the urine. In this caſe the patient is ſaid to have the ſtone.

CAUSES.——The ſtone and gravel may be occaſioned by high living; the uſe of ſtrong aſtringent wines; a ſedentary life; lying too hot, ſoft, or too much on the back; the conſtant uſe of water impregnated with earthy or ſtony particles; aliments of an aſtringent or windy nature, &c. It may likewiſe proceed from an hereditary diſpoſition. Perſons in the decline of life, and thoſe who have been much afflicted with the gout or rheumatiſm, are moſt liable to it.

SYMPTOMS.——Small ſtones or gravel in the kidneys occaſion pain in the loins; ſickneſs; vomiting; and ſometimes bloody urine. When the ſtone deſcends into the ureter, and is too large to paſs along with eaſe, all the above ſymptoms are increaſed; the pain extends towards the bladder; the thigh and leg of the affected ſide are benumbed; the teſticles are drawn upwards, and the urine is obſtructed.

A ſtone in the bladder is known from a pain, at the time, as well as before and after making water; from the urine coming away by drops, or ſtopping ſuddenly when it was running in a full ſtream; by a violent pain in the neck of the bladder upon motion, eſpecially on horſeback, or in a carriage on a rough road; from a white, thick, copious, ſtinking, mucous ſediment in the urine; from an itching in the top of the penis; from bloody urine; from an inclination to go to ſtool during the diſcharge of urine; from the patient's paſſing his urine more eaſily when lying than in an erect poſture; from a kind of convulſive motion occaſioned by the ſharp pain in diſcharging the laſt drops of the urine; and laſtly, from ſounding or ſearching with the catheter.

REGIMEN.——Perſons afflicted with the gravel or ſtone ſhould avoid aliments of a windy or heating nature, as ſalt meats, ſour fruits, &c. Their diet ought chiefly to conſiſt of ſuch things as promote the ſecretion of urine, and keep the body open. Artichokes, aſparagus, ſpinnage, lettuce, parſley, ſuccory, purſlane, turnips, potatoes, carrots, and radiſhes, may be ſafely eaten. Onions, leeks, and celery, are, in this caſe, reckoned medicinal. The moſt proper drinks are whey, butter-milk, milk and water, barley-water; decoctions or infuſions of the roots of marſh-mallows, parſley, liquorice, or of other mild mucilaginous vegetables, as linſeed. If the patient has been accuſtomed to generous liquors, he may drink ſmall gin punch.

Gentle exercise is proper; but violent motion is apt to occasion bloody urine. We advise that it should be taken in moderation. Persons afflicted with gravel, often pass a great number of stones after riding on horseback, or in a carriage; but those who have a stone in the bladder, are seldom able to bear these kinds of exercise. Where there is a hereditary tendency to this disease, a sedentary life ought never to be indulged. Were people careful, upon the first symptoms of gravel, to observe a proper regimen of diet, and to take sufficient exercise, it might often be carried off, or at least prevented from increasing; but if the same course which occasioned the disease is persisted in, it must be aggravated.

MEDICINE.——In what is called a fit of the gravel, which is commonly occasioned by a stone sticking in the ureter or some part of the urinary passages, the patient must be bled, warm fomentations should likewise be applied to the part affected, emollient anodyne clysters administered, and diluting mucilaginous liquors drank, &c. The treatment of this case has been fully pointed out under the articles, *inflammation of the kidneys and bladder*, to which we refer.

Dr. Whyte advises patients, who are subject to frequent fits of gravel in the kidneys, but have no stone in the bladder, to drink, every morning, two or three hours before breakfast, an English pint of oyster or cockle-shell lime-water. The Doctor very justly observes, that though this quantity might be too small to have any sensible effect in dissolving a stone in the bladder, yet it may very probably prevent its growth.

When a stone is formed in the bladder, the Doctor recommends Alicant soap, and oyster, or cockle-shell lime-water,* to be taken in the following manner: The patient must swallow, every day, in any form that is least disagreeable, an ounce of the internal part of Alicant soap, and drink three or four English pints of oyster, or cockle-shell lime-water. The soap is to be divided into three doses; the largest to be taken fasting in the morning early; the second at noon; and the third at seven in the evening; drinking, above each dose, a large draught of the lime-water; the remainder of which he may take any time betwixt dinner and supper, instead of other liquors.

The patient should begin with a smaller quantity of the lime-water and soap, than that mentioned above; at first an English pint of the former, and three drachms of the latter, may be taken daily. This quantity, however, he may increase by degrees, and ought to persevere in the use of these medicines, especially if he finds any abatement of his complaints, for several months; nay, if the stone be very large, for years. It may likewise be proper for the patient, if severely pained, not only to begin with the soap and lime-water in small quantities, but to take the second or third lime-water in-

* See Appendix, Lime-water.

ſtead of the firſt. However, after he has been for ſome time accuſtomed to theſe medicines, he may not only take the firſt water, but, if he finds he can eaſily bear it, heighten its diſſolving power ſtill more by pouring it a ſecond time on freſh calcined ſhells.

The cauſtic alkali, or ſoap lees, is the medicine chiefly in vogue, at preſent, for the ſtone. It is of a very acrid nature, and ought, therefore, to be given in ſome gelatinous or mucilaginous liquor; as veal-broth, new milk, linſeed tea, a ſolution of gum-arabic, or a decoction of marſh-mallow roots. The patient muſt begin with ſmall doſes of the lees, as thirty or forty drops, and increaſe by degrees, as far as the ſtomach can bear it.*

Though the ſoap-lees and lime-water are the moſt powerful medicines which have hitherto been diſcovered for the ſtone; yet there are ſome things of a more ſimple nature, which in certain caſes are found to be beneficial, and therefore deſerve a trial. An infuſion of the ſeeds of wild carrot, ſweetened with honey, has been found to give conſiderable eaſe in caſes where the ſtomach could not bear any thing of an acrid nature. A decoction of raw coffee-berries taken morning and evening, to the quantity of eight or ten ounces, with ten drops of ſweet ſpirit of nitre, has, likewiſe, been found very efficacious in bringing away large quantities of earthy matter in flakes. Honey is likewiſe found to be of conſiderable ſervice, and may be taken in gruel, or in any other form that is more agreeable.

The only other medicine which we ſhall mention is the *uva urſi*. It has been greatly extolled of late, both for the gravel and ſtone. It ſeems, however, to be, in all reſpects, inferior to the ſoap and lime-water; but it is leſs diſagreeable, and has frequently, to my knowledge, relieved gravelly complaints. It is generally taken in powder from half a drachm to a whole drachm, two or three times a-day. It may, however, be taken to the quantity of ſeven or eight drachms a-day, with great ſafety and good effect.

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## CHAPTER XXXV.

### *Of involuntary Diſcharges of Blood.*

INVOLUNTARY diſcharges of blood often happen from various parts of the body. Theſe are ſo far from being always dangerous, that they prove often ſalutary. When ſuch diſcharges are critical, which is frequently the caſe in fevers, they ought not to be ſtopped. Nor is it proper at any time to ſtop them, unleſs

* The cauſtic alkali may be prepared by mixing two parts of quicklime with one of potaſhes, and fuming them to ſtand till the lixivium be formed, which muſt be carefully filtrated before it be uſed. If the ſalt will not diſſolve readily, a ſmall quantity of water may be added to the mixture.

they be ſo great as to endanger the patient's life. Moſt people, afraid of the ſmalleſt diſcharge of blood from any part of the body, fly immediately to the uſe of ſtyptic and aſtringent medicines, by which means an inflammation of the brain, or ſome other fatal diſeaſe, is occaſioned, which had the diſcharge been allowed to go on, might have been prevented.

Periodical diſcharges of blood, from whatever part of the body, muſt not be ſtopped. They are always the efforts of Nature to relieve herſelf; and fatal diſeaſes have often been the conſequence of obſtructing them. It may indeed be ſometimes neceſſary to check the violence of ſuch diſcharges; but even this requires the greateſt caution. Inſtances might be given where the ſtopping of a ſmall periodical flux of blood from one of the fingers, has proved fatal.

In the early period of life, bleeding at the noſe is very common. Thoſe who are farther advanced in years, are more liable to hæmoptoe, or diſcharge of blood from the lungs. After the middle period of life, hæmorrhoidal fluxes are moſt common; and in the decline of life, diſcharges of blood from the urinary paſſages.

Involuntary fluxes of blood may proceed from very different, and often from quite oppoſite cauſes. Sometimes they are owing to a particular conſtruction of the body, as a ſanguine temperament, a laxity of the veſſels, a plethoric habit, &c. At other times they proceed from a determination of the blood towards one particular part, as the head, the hæmorrhoidal veins, &c. They may proceed from an inflammatory diſpoſition of the blood, in which caſe there is generally ſome degree of fever: this likewiſe happens when the flux is occaſioned by an obſtructed perſpiration, or a ſtricture upon the ſkin, the bowels, or any particular part of the ſyſtem.

Hæmorrhages occur in malignant fevers, dyſentery, ſcurvy, malignant ſmall pox, &c. In theſe diſeaſes, there are great diſcharges of blood from different parts of the body. They may likewiſe be brought on by too liberal a uſe of medicines, ſuch as cantharides, &c. Food of an acrid or irritating quality may occaſion hæmorrhages; as alſo ſtrong purges and vomits, or any thing that greatly ſtimulates the bowels.

Violent paſſions or agitations of the mind may have this effect. Theſe often cauſe bleeding at the noſe; ſometimes an hæmorrhage in the brain. Violent efforts of the body, by overſtraining or hurting the veſſels, may have the ſame effect, eſpecially when the body is long kept in an unnatural poſture, as hanging the head very low, &c.

The cure of an hæmorrhage muſt be adapted to its cauſe. When it proceeds from too much blood, or a tendency to inflammation, bleeding, with gentle purges and other evacuations, will be neceſſary. It will likewiſe be proper for the patient in this caſe to live chiefly upon a vegetable diet, to avoid all ſtrong liquors,

and food that is of an acrid, hot or ſtimulating quality. The body ſhould be kept cool and the mind eaſy.

When hæmorrhage comes on in malignant fevers, ſcurvy, &c. the patient ought to live chiefly upon acid fruits with milk, and vegetables of a nouriſhing nature, as ſago, ſalop, &c. His drink may be wine diluted with water, and ſharpened with the juice of lemon, vinegar, or ſpirits of vitriol. The beſt medicine in this caſe is the Peruvian bark, which may be taken according to the urgency of the ſymptoms.

When a flux of blood is the effect of acrid food, or of ſtrong ſtimulating medicines, the cure is to be effected by ſoft and mucilaginous diet. The patient may likewiſe take frequently about the bulk of a nutmeg of Locatelli's balſam, or the ſame quantity of ſpermaceti.

When an obſtructed perſpiration, or a ſtricture upon any part of the ſyſtem, is the cauſe of an hæmorrhage, it may be removed by drinking warm diluting liquors, lying a-bed, bathing the extremities in warm water, &c.

## *Of Bleeding at the Noſe.*

THIS is commonly preceded by ſome degree of quickneſs of the pulſe, flushing in the face, pulſation of the temporal arteries, heavineſs in the head, dimneſs of the ſight, heat and itching of the noſtrils, &c.

To perſons who abound with blood, this diſcharge is very ſalutary. It often cures a vertigo, the head-ach, a phrenzy, and even an epilepſy. In fevers, where there is a great determination of blood towards the head, it is of the utmoſt ſervice. It is beneficial for inflammations of the liver and ſpleen, and often in the gout and rheumatiſm. In all diſeaſes where bleeding is neceſſary, a ſpontaneous diſcharge of blood from the noſe is of more ſervice than the ſame quantity let with a lancet.

In a diſcharge of blood from the noſe, the great point is to determine whether it ought to be ſtopped or not. It is a common practice to ſtop the bleeding, without conſidering weather it be a diſeaſe, or the cure of a diſeaſe. This conduct proceeds from fear; but it has often bad, and ſometimes fatal conſequences.

When a diſcharge of blood from the noſe happens in an inflammatory diſeaſe, there is always reaſon to believe that it may prove ſalutary; and therefore it ſhould be ſuffered to go on, at leaſt as long as the patient is not weakened by it.

When it happens to perſons in perfect health who are full of blood, it ought not to be ſuddenly ſtopped, eſpecially if the ſymp-

toms of plethora, mentioned above, have preceded it. In this caſe, it cannot be ſtopped without riſking the patient's life.

In fine, whenever bleeding at the noſe relieves any bad ſymptom, and does not proceed ſo far as to endanger the patient's life, it ought not to be ſtopped. But when it returns frequently, or continues till the pulſe becomes low, the extremities begin to grow cold, the lips pale, or the patient complains of being ſick or faint, it muſt immediately be ſtopped.

For this purpoſe, the patient ſhould be ſet nearly upright, with his head reclining a little, and his legs immerſed in water about the warmth of new milk. His hands ought likewiſe to be put in lukewarm water, and his garters may be tied a little tighter than uſual. Ligatures may be applied to the arms, about the place where they are uſually made for bleeding, and with nearly the ſame degree of tightneſs. Theſe muſt be gradually ſlackened as the blood begins to ſtop, and removed entirely as ſoon as it gives over.

Sometimes dry lint put up the noſtrils will ſtop the bleeding. When this does not ſucceed, doſſils of lint dipped in ſtrong ſpirits of wine, may be put up the noſtrils, or if that cannot be had, they may be dipped in brandy. Blue vitriol diſſolved in water may likewiſe be uſed for this purpoſe, or a tent dipped in the white of an egg, well beat up, may be rolled in a powder made of equal parts of white ſugar, burnt allum, and white vitriol, and put up the noſtril from whence the blood iſſues*.

Internal medicines can hardly be of uſe here, as they have ſeldom time to operate. It may not however be amiſs to give the patient half an ounce of Glauber's ſalt, and the ſame quantity of manna, diſſolved in four or five ounces of barley-water. This may be taken at a draught, and repeated, if it does not operate, in a few hours. Ten or twelve grains of nitre may be taken in a glaſs of cold water and vinegar every hour, or oftener, if the ſtomach will bear it. If a ſtronger medicine be neceſſary, a tea-cupful of the tincture of roſes, with twenty or thirty drops of the weak ſpirit of vitriol, may be taken every hour. When theſe things cannot be had, the patient may drink water, with a little common ſalt in it, or equal parts of water and vinegar.

If the genitals be immerſed for ſome time in cold water, it will generally ſtop a bleeding at the noſe. I have not known this fail.

Sometimes, when the bleeding is ſtopped outwardly, it continues inwardly. This is very troubleſome, and requires particular attention, as the patient is apt to be ſuffocated with the blood, eſpecially if he falls aſleep, which he is very ready to do after loſing a great quantity of blood.

* This intention is more effectually anſwered by paſſing a bougee up the bleeding noſtril, with a piece of ſponge tied near the middle of it. This may be drawn up ſo as to compreſs the bleeding veſſel, by bringing the inner end of the bougee out of the mouth. (I. C.)

When the patient is in danger of ſuffocation from the blood getting into his throat, the paſſages may be ſtopped by drawing threads up the noſtrils, and bringing them out at the mouth then faſtening pieces of ſpunge, or ſmall rolls of linen cloth to their extremities; afterwards drawing them back, and tying them on the outſide with a ſufficient degree of tightneſs.

After the bleeding is ſtopped, the patient ought to be kept as eaſy and quiet as poſſible. He ſhould not pick his noſe, nor take away the tents or clotted blood, till they fall off of their own accord, and ſhould not lie with his head low.

Thoſe who are affected with frequent bleeding at the noſe, ought to bathe their feet often in warm water, and to keep them warm and dry. They ought to wear nothing tight about their necks, to keep their body as much in an erect poſture as poſſible, and never to view any object obliquely. If they have too much blood, a vegetable diet, with now and then a cooling purge, is the ſafeſt way to leſſen it.

But when the diſeaſe proceeds from a relaxed ſtate of the veſſels, the diet ſhould be rich and nouriſhing, as ſtrong broths and jellies, ſago-gruel with wine and ſugar, &c. Infuſions of the bark in wine ought to be taken and perſiſted in for a conſiderable time.

## *Of the Bleeding and Blind Piles.*

A diſcharge of blood from the hæmorrhoidal veſſels is called the *bleeding piles*. When the veſſels only ſwell, and diſcharge no blood, but are exceeding painful, the diſeaſe is called the *blind piles*.

Perſons of a looſe ſpungy fibre, of a bulky ſize, who live high, and lead a ſedentary inactive life, are moſt ſubject to this diſeaſe. It is often owing to a hereditary diſpoſition. Where this is the caſe, it attacks perſons more early in life than when it is accidental. Men are more liable to it than women, eſpecially thoſe of a ſanguine, plethoric, or ſcorbutic habit, or of a melancholy diſpoſition.

The piles may be occaſioned by an exceſs of blood, by ſtrong aloetic purges, high-ſeaſoned food, drinking great quantities of ſweet-wines, the neglect of bleeding, or other cuſtomary evacuations, much riding, great coſtiveneſs, or any thing that occaſions hard or difficult ſtools. Anger, grief, or other violent paſſions, will likewiſe occaſion the piles, or ſitting on the damp ground. A pair of thin breeches will excite the diſorder in a perſon who is ſubject to it, and ſometimes even in thoſe who never had it before. Pregnant women are often afflicted with it.

A flux of blood, from the *anus*, is not always to be treated as a diſeaſe. It is even more ſalutary than bleeding at the noſe, and often prevents or carries off diſeaſes. It is peculiarly beneficial in the

gout, rheumatiſm, aſthma, and hypochondriacal complaints, and often proves critical in colics, and inflammatory fevers.

In the management of the patient, regard muſt be had to his habit of body. his age, ſtrength, and manner of living. A diſcharge which might be exceſſive, and prove hurtful to one, may be very moderate, and even ſalutary to another. That only is to be eſteemed dangerous which continues too long, and is in ſuch quantity as to waſte the patient's ſtrength, hurt the digeſtion, nutrition, and other functions neceſſary to life.

When this is the caſe, the diſcharge muſt be checked by a proper regimen, and aſtringent medicines. The DIET muſt be cool but nouriſhing, conſiſting chiefly of bread, milk, cooling vegetables and broths. The drink may be chalybeate water, orange-whey, decoctions or infuſions of the aſtringent and mucilaginous plants, as the tormentil root, biſtort, the marſhmallow-root, &c.

Old conſerve of red roſes is a very good medicine in this caſe. It may be mixed with new milk, and taken in the quantity of an ounce three or four times a-day. This medicine is in no great repute, owing to its being ſeldom taken in ſuch quantity as to produce any effects; but when taken as here directed, and duly perſiſted in, I have known it perform very extraordinary cures in violent hæmorrhages, eſpecially when aſſiſted by the tincture of roſes; a tea-cupful of which may be taken about an hour after every doſe of the conſerve.

The bark is likewiſe proper in this caſe, both as a ſtrengthener and aſtringent. Half a drachm may be taken in a glaſs of red wine, ſharpened with a few drops of the elixir of vitriol, three or four times a-day.

The bleeding piles are ſometimes periodical, and return regularly once a-month, or once in three weeks. In this caſe, they are always to be conſidered as a ſalutary diſcharge, and by no means to be ſtopped. Some have entirely ruined their health by ſtopping a periodical diſcharge of blood from the hæmorrhoidal veins.

In the *blind piles*, bleeding is generally of uſe. The diet muſt be light and thin, and the drink cool and diluting. The body muſt be kept gently open. This may be done by ſmall doſes of the flowers of brimſtone and cream of tartar. Theſe may be mixed in equal quantities, and a tea-ſpoonful taken two or three times a-day, or oftener if neceſſary. Or an ounce of the flours of brimſtone, and half an ounce of purified nitre, may be mixed with three or four ounces of the lenitive electuary, and a tea-ſpoonful of it taken three or four times a-day.

Emollient clyſters are here likewiſe beneficial; but there is ſometimes ſuch an aſtriction of the *anus*, that they cannot be thrown up. In this caſe, a vomit has had a very good effect.

When the piles are exceeding painful and ſwelled, but diſcharge nothing, the patient muſt ſit over the ſteams of warm water. He may likewiſe apply a linen cloth dipped in warm ſpirits of wine to

the part, or poultices of bread and milk. If theſe do not produce a diſcharge, and the piles appear large, leeches muſt be applied as near them as poſſible, or, if they will fix upon the piles themſelves, ſo much the better. When leeches will not fix, the piles may be opened with a lancet. The operation is very eaſy, and is attended with do danger.

Various ointments, and other external applications, are recommended in the piles; but I do not remember any effects from theſe worth mentioning. Their principal uſe is to keep the part moiſt, which may be done as well by a ſoft poultice, or an emollient cataplaſm. When the pain however is very great, a liniment made of two ounces of emollient ointment, and half an ounce of laudanum, beat up with the yolk of an egg, may be applied.

## *Spitting of Blood.*

WE mean here to treat of the diſcharge of blood from the lungs only which is called an *hæmoptoe*, or *ſpitting of blood*. Perſons of a ſlender make, and a lax fibre, who have long necks and ſtrait breaſts, are moſt liable to this diſeaſe. It is moſt common in the ſpring, and generally attacks people before they arrive at the prime or middle period of life. It is a common obſervation, that thoſe who have been ſubject to bleeding at the noſe when young, are afterwards moſt liable to an hæmoptoe.

CAUSES.——An hæmoptoe may proceed from exceſs of blood, from a peculiar weakneſs in the lungs, or a bad conformation of the breaſt, exceſſive drinking, running, wreſtling, ſinging, or ſpeaking aloud. Such as have weak lungs ought to avoid all violent exertions of that organ, as they value life. They ſhould likewiſe guard againſt violent paſſions, exceſſive drinking, and every thing that occaſions a rapid circulation of the blood.

This diſeaſe may proceed from wounds of the lungs. Theſe may either be received from without, or they may be occaſioned by hard bodies getting into the wind-pipe, and ſo falling down upon the lungs, and hurting the tender organ. The obſtruction of any cuſtomary evacuation may occaſion a ſpitting of blood; as neglect of bleeding or purging at the uſual ſeaſons, the ſtoppage of the bleeding piles in men, or the menſes in women, &c. It may likewiſe proceed from a polypus, ſchirrous concretions, or any thing that obſtructs the circulation of the blood in the lungs. It is often the effect of a long and violent cough; in which caſe, it is generally the forerunner of a conſumption. A violent degree of cold ſuddenly applied to the external parts of the body, will occaſion an hæmoptoe. It may likewiſe be occaſioned by breathing air which is too much rarified to be able properly to expand the lungs. This is often the caſe with thoſe who work in hot places, as fur-

naces, glaſs-houſes, or the like. It is likewiſe ſaid to happen to ſuch as aſcend to the top of very high mountains, as the Peak of Teneriffe, &c.

Spitting of blood is not always a primary diſeaſe. It is often only a ſymptom, and in ſome diſeaſes not an unfavourable one. This is the caſe in pleuriſies, peripneumonies, and ſundry other fevers. In a dropſy, ſcurvy, or conſumption, it is a bad ſymptom, and ſhows that the lungs are ulcerated.

SYMPTOMS.——Spitting of blood is generally preceded by a ſenſe of weight, and oppreſſion of the breaſt, a dry tickling cough, hoarſeneſs, and a difficulty of breathing. Sometimes it is uſhered in with ſhivering, coldneſs of the extremities, coſtiveneſs, great laſſitude, flatulence, pain of the back and loins, &c. As theſe ſhow a general ſtricture upon the veſſels, and a tendency of the blood to inflammation, they are commonly the forerunners of a very copious diſcharge. The above ſymptoms do not attend a diſcharge of blood from the gums or fauces, by which means theſe may always be diſtinguiſhed from an hæmoptoe. Sometimes the blood that is ſpit up is thin, and of a florid red colour; and at other times it is thick, and of a dark or blackiſh colour; nothing can be inferred from this circumſtance, but that the blood has lain a longer or ſhorter time in the breaſt before it was diſcharged.

Spitting of blood, in a ſtrong, healthy perſon, of a ſound conſtitution, is not very dangerous; but when it attacks the tender and delicate, or perſons of a weak lax fibre, it is with difficulty removed. When it proceeds from a ſchirrus of the lungs, it is bad. The danger is greater when the diſcharge proceeds from the rupture of a large veſſel than of a ſmall one. When the extravaſated blood is not ſpit up, but lodges in the breaſt, it corrupts, and greatly increaſes the danger. When the blood proceeds from an ulcer in the lungs, it is generally fatal.

REGIMEN.——The patient ought to be kept cool and eaſy. Every thing that heats the body or quickens the circulation, increaſes the danger. The mind ought likewiſe to be ſoothed, and every occaſion of exciting the paſſions avoided. The diet ſhould be ſoft, cooling, and ſlender; as rice boiled with milk, ſmall broths, barley-gruels, panado, &c. The diet, in this caſe, can ſcarce be too low. Even water-gruel is ſufficient to ſupport the patient for ſome days. All ſtrong liquors muſt be avoided. The patient may drink milk and water, barley-water, whey, butter-milk, and ſuch-like. Every thing ſhould be drank cold, and in ſmall quantities at a time. He ſhould obſerve the ſtricteſt ſilence, or at leaſt ſpeak with a very low voice.

MEDICINE.——This, like the other involuntary diſcharges of blood, ought not to be ſuddenly ſtopped by aſtringent medicines. More miſchief is often done by theſe, than if it were ſuffered to go on. It may, however, proceed ſo far as to weaken the patient,

and even endanger his life; in which caſe, proper means muſt be uſed for reſtraining it.

The body ſhould be kept gently open by laxative diet; as roaſted apples, ſtewed prunes, and ſuch-like. If theſe ſhould not have the deſired effect, a tea-ſpoonful of the lenitive electuary may be taken twice or thrice a-day, as is found neceſſary. If the bleeding proves violent, ligatures may be applied to the extremities, as directed for a bleeding at the noſe.

If the patient behot or feveriſh, bleeding and ſmall doſes of nitre will be of uſe; a ſcruple or half a drachm of nitre may be taken in a cup of his ordinary drink, twice or thrice a-day. His drink may be ſharpened with acids, as juice of lemon, or a few drops of the ſpirit of vitriol; or he may take frequently a cup of the tincture of roſes.

Bathing the feet and legs in lukewarm water, has a very good effect in this diſeaſe. Opiates are ſometimes beneficial; but muſt be adminiſtered with caution. Ten or twelve drops of laudanum may be given in a cup of barley-water twice a-day, and continued for ſome time, provided they be found beneficial.

The conſerve of roſes is a very good medicine in this caſe, if taken in ſufficient quantity, and long enough perſiſted in. It may be taken to the quantity of three or four ounces a-day; and, if the patient be troubled with a cough, it ſhould be made into an electuary with balſamic ſyrup, and a little of the ſyrup of poppies.

If ſtronger aſtringents be neceſſary, fifteen or twenty drops of the elixir of vitriol may be given in a glaſs of water, three or four times a-day.

Thoſe who are ſubject to frequent returns of this diſeaſe, ſhould avoid all exceſs. Their diet ſhould be light and cool, conſiſting chiefly of milk and vegetables. Above all, let them beware of vigorous efforts of the body, and violent agitations of the mind.

## *Vomiting of Blood.*

THIS is not ſo common as the other diſcharges of blood already mentioned; but it is very dangerous, and requires particular attention.

Vomiting of blood is generally preceded by pain of the ſtomach, ſickneſs, and nauſea; and is accompanied with great anxiety, and frequent fainting fits.

This diſeaſe is ſometimes periodical; in which caſe, it is leſs dangerous. It often proceeds from an obſtruction of the menſes in women; and ſometimes from the ſtopping of the hæmorrhoidal flux in men. It may be occaſioned by any thing that greatly ſtimulates or wounds the ſtomach, as ſtrong vomits or purges, acrid poiſons, ſharp or hard ſubſtances taken into the ſtomach, &c. It is

often the effect of obſtructions in the liver, the ſpleen, or ſome of the other viſcera, or external violence as blows or bruiſes, or any of the cauſes which produce inflammation. In hyſteric women, vomiting of blood is a very common, but no dangerous ſymptom.

A great part of the danger in this diſeaſe ariſes from the extravaſated blood lodging in the bowels, and becoming putrid, by which a dyſentery or malignant fever may be occaſioned. The beſt way of preventing this, is to keep the body gently open, by frequently exhibiting emollient clyſters. Purges muſt not be given till the diſcharge is ſtopt, otherwiſe they will irritate the ſtomach, and increaſe the diſorder. All the food and drink muſt be of a mild cooling nature, and taken in ſmall quantities. Even drinking cold water has ſometimes proved a remedy, but it will ſucceed better when ſharpened with the weak ſpirits of vitriol*. When there are ſigns of an inflammation, bleeding may be neceſſary; but the patient's weakneſs will ſeldom permit it. Opiates may be of uſe; but they muſt be given in very ſmall doſes, as four or five drops of laudanum twice or thrice a-day.

After the diſcharge is over, as the patient is generally troubled with gripes, occaſioned by the acrimony of the blood lodged in the inteſtines, gentle purges will be neceſſary.

## *Of Bloody Urine.*

THIS is a diſcharge of blood from the veſſels of the kidneys or bladder, occaſioned by their being either enlarged, broken, or eroded. It is more or leſs dangerous according to the different circumſtances which attend it.

When pure blood is voided ſuddenly without interruption and without pain, it proceeds from the kidneys; but if the blood be in ſmall quantity, of a dark colour, and emitted with heat and pain about the bottom of the belly, it proceeds from the bladder. When bloody urine is occaſioned by a rough ſtone deſcending from the kidneys to the bladder, which wounds the *ureters*, it is attended with a ſharp pain in the back, and difficulty of making water. If the coats of the bladder are hurt by a ſtone, and the bloody urine follows, it is attended with the moſt acute pain, and a previous ſtoppage of urine.

Bloody urine may likewiſe be occaſioned by falls, blows, the lifting or carrying of heavy burdens, hard riding, or any violent motin. It may alſo proceed from ulcers of the bladder, from a ſtone

* Clyſters of cold water, with forty or fifty drops of laudanum in each, ſhould be injected, and ſtillneſs ſtrictly enjoined. (T. C.)

lodged in the kidneys, or from violent purges, or ſharp diuretic medicines, eſpecially cantharides.

Bloody urine is always attended with ſome degree of danger: but peculiarly ſo when mixed with purulent matter, as this ſhows an ulcer ſome where in the urinary paſſages. Sometimes this diſcharge proceeds from exceſs of blood, in which caſe it is rather a ſalutary evacuation than a diſeaſe. If the diſcharge however be very great, it may waſte the patient's ſtrength, and occaſion an ill habit of body, a dropſy, or a conſumption.

The treatment of this diſorder muſt be varied, according to the different cauſes from which it proceeds.

When it is owing to a ſtone in the bladder, the cure depends upon an operation; a deſcription of which would be foreign to our purpoſe. If attended with a plethora, and ſymptoms of inflammation, bleeding will be neceſſary. The body muſt likewiſe be kept open by emollient clyſters, or cooling purgative medicines; as cream of tartar, manna, or ſmall doſes of lenitives electuary.

When bloody urine occurs in malignant diſeaſes, as the ſmall-pox, fevers, or the like, the patient's life depends on the liberal uſe of the bark and acids, as already ſhown.

When there is reaſon to ſuſpect an ulcer in the kidneys or bladder, the patient's diet muſt be cool, and his drink of a ſoft, healing, balſamic quality, as decoctions of marſh-mallow roots with liquorice, ſolutions of gum-arabic, &c. Three ounces of marſh-mallow roots, and half an ounce of liquorice, may be boiled in two Engliſh quarts of water to one; two ounces of gum-arabic may be diſſolved in the ſtrained liquor, and a tea-cupful of it taken four or five times a-day.

The early uſe of aſtringents in this diſeaſe has often bad conſequences. When the flux is ſtopped too ſoon, the grumous blood, confined in the veſſels, may produce inflammations, abſceſs, and ulcers. If the cauſe be urgent, or the patient ſeems to ſuffer from the loſs of blood, gentle aſtringents may be neceſſary. In this caſe, the patient may take three or four ounces of lime-water, with half an ounce of the tincture of bark, three times a-day, or more frequent if neceſſary.

## *Of the Dyſentery, or Bloody Flux.*

THIS diſeaſe prevails in the ſpring and autumn. It is moſt common in marſhy countries, where, after hot and dry ſummers, it is apt to become epidemic. Perſons are moſt liable to it, who are much expoſed to the night air, or who live in places where the air is confined and unwholeſome. Hence, it often proves fatal in camps, on ſhipboard, in gaols, hoſpitals, and ſuch-like places.

CAUSES.——The dyſentery may be occaſioned by any thing that obſtructs the perſpiration; as damp beds, wet clothes, unwholeſome diet, air, &c. But it is moſt frequently communicated by infection. This ought to make people extremely cautious, in going near ſuch perſons as labour under the diſeaſe. Even the ſmell of the patient's excrements has been known to communicate it.

SYMPTOMS.——It is known by a flux of the belly, attended with violent pain of the bowels, a conſtant inclination to go to ſtool, and generally more or leſs blood in the ſtools. It begins, like other fevers, with chillneſs, loſs of ſtrength, a quick pulſe, great thirſt, and an inclination to vomit. The ſtools are at firſt greaſy and frothy, afterwards they are ſtreaked with blood, and at laſt, have frequently the appearance of pure blood, mixed with ſmall filaments reſembling bits of ſkin. Worms are ſometimes paſſed both upwards and downwards through the whole courſe of the diſeaſe. When the patient goes to ſtool, he feels a bearing down, as if the whole bowels were falling out, and ſometimes a part of the inteſtine is actually protruded, which proves exceeding troubleſome, eſpecially in children. Flatulency is a troubleſome ſymptom, eſpecially towards the end of the diſeaſe.

This diſeaſe may be diſtinguiſhed from a diarrhœa or looſeneſs, by the acute pain of the bowels, and the blood which generally appears in the ſtools; and from the *cholera morbus*, by its not being attended with ſuch violent and frequent fits of vomiting, &c.

When the dyſentery attacks the old, the delicate, or ſuch as have been waſted by the gout, the ſcurvy, or other lingering diſeaſes, it generally proves fatal. Vomiting and hiccuping are bad ſigns, as they ſhow an inflammation of the ſtomach. When the ſtools are green, black, or have an exceeding diſagreeable cadaverous ſmell, the danger is very great, as it ſhows the diſeaſe to be of the putrid kind. It is an unfavourable ſymptom when clyſters are immediately returned; but ſtill more ſo, when the paſſage is ſo obſtinately ſhut, that they cannot be injected. A feeble pulſe, coldneſs of the extremities, with difficulty of ſwallowing, and convulſions, are ſigns of approaching death.

REGIMEN.——Cleanlineſs contributes greatly to the recovery of the patient, and the ſafety of ſuch as attend him. In all contagious diſeaſes, the danger is increaſed, and the infection ſpread, by the neglect of cleanlineſs; but in no one more than this. Every thing about the patient ſhould be frequently changed. The excrements ſhould never be ſuffered to continue in his chamber, but removed immediately, and buried under ground. A conſtant ſtream of freſh air ſhould be admitted into the chamber; and it ought frequently to be ſprinkled with vinegar, juice of lemon, or ſome other ſtrong acid.

The patient muſt not be diſcouraged, but his ſpirits kept up in

hopes of a cure. Nothing tends more to render any diſeaſe mortal, than the fears and apprehenſions of the ſick. All diſeaſes of this nature have a tendency to ſink and depreſs the ſpirits, and when that is increaſed by fears and alarms, from thoſe whom the patient believes to be perſons of ſkill, it cannot fail to have the worſt effects.

A flannel waiſtcoat worn next the ſkin has often a very good effect in the dyſentery. This promotes the perſpiration without over-heating the body. Great caution is neceſſary in leaving it off. I have often known a dyſentery brought on by imprudently throwing off a flannel waiſtcoat before the ſeaſon was ſufficiently warm. For whatever purpoſe this piece of dreſs is worn, it ſhould never be left off but in a warm ſeaſon.

In this diſeaſe, the greateſt attention muſt be paid to the patient's diet. Fleſh, fiſh, and every thing that has a tendency to turn putrid or rancid on the ſtomach, muſt be abſtained from. Apples boiled in milk, water-pap, and plain, light pudding, with broth made of the gelatinous parts of animals, may conſtitute the principal part of the patient's food. Gelatinous broth not only anſwers the purpoſe of food, but likewiſe of medicine. I have often known dyſenteries, which were not of a putrid nature, cured by it after pompous medicines had proved ineffectual*.

Another kind of food very proper in the dyſentery, which may be uſed by ſuch as cannot take the broth mentioned above, is made by boiling a few handfuls of fine flour, tied in a cloth, for ſix or ſeven hours, till it becomes as hard as ſtarch. Two or three table-ſpoonfuls of this may be grated down, and boiled in ſuch a quantity of new milk and water, as to be of the thickneſs of pap. This may be ſweetened to the patient's taſte, and taken for his ordinary food†.

* The manner of making this broth is, to take a ſheep's-head and feet, with the ſkin upon them, and to burn the wool off with a hot iron; afterwards to boil them till the broth is quite a jelly. A little cinnamon or mace may be added, to give the broth an agreeable flavour, and the patient may take a little of it warm with toaſted bread, three or four times a-day. A clyſter of it may likewiſe be given twice a-day. Such as cannot uſe the broth made in this way, may have the head and feet ſkinned; but we have reaſon to believe, that this hurts the medicine. It is not our buſineſs here to reaſon upon the nature and qualities of medicine, otherwiſe this might be ſhown to poſſeſs virtues every way ſuited to the cure of a dyſentery which does not proceed from a putrid ſtate of the humours. Whole families have often been cured by it, after they had uſed many other medicines in vain. It will, however, be proper that the patient take a vomit, and a doſe or two of rhubarb, before he begins to uſe the broth. It will likewiſe be neceſſary to continue the uſe of it for a conſiderable time, and to make it the principal food.

† The learned and humane Dr. Rutherford, late profeſſor of medicine in the univerſity of Edinburgh, uſed to mention this food in his public lectures with great encomiums. He directed it to be made by tying a pound or two of the fineſt flour, as tight as poſſible, in a linen

In dyſentery, the patient may be allowed to eat freely of moſt kinds of ripe fruit; as apples, grapes, gooſeberries, currant-berries, ſtrawberries, &c. Theſe may either be eaten raw or boiled, with or without milk, as the patient chooſes. The prejudice againſt fruit in this diſeaſe, is ſo great, that many believe it to be the common cauſe of dyſenteries. This is an egregious miſtake. Both reaſon and experience ſhow, that good fruit is one of the beſt medicines, both for the prevention and cure of the dyſentery. Good fruit is in every reſpect calculated to counteract that tendency to putrefaction, from whence the moſt dangerous kind of dyſentery proceeds. The patient, in ſuch a caſe, ought to be allowed to eat as much fruit as he pleaſes, provided it be ripe*.

The moſt proper drink in this diſorder, is whey or flixſeed tea. The dyſentery has often been cured by the uſe of clear whey alone. It may be taken both for drink and in form of clyſter. When whey cannot be had, barley-water ſharpened with cream of tartar may be drank, or a decoction of barley and tamarinds; two ounces of the former and one of the latter, may be boiled in two Engliſh quarts of water to one. Warm water, water-gruel, or water wherein hot iron has been frequently quenched, are all very proper, and may be drank in turns. Camomile-tea, if the ſtomach will bear it, is an exceeding proper drink. It both ſtrengthens the ſtomach, and by its antiſeptic quality, tends to prevent a mortification of the bowels.

MEDICINE.——At the beginning of this diſeaſe, it is always neceſſary to cleanſe the firſt paſſages. For this purpoſe, a vomit of ipecacuanha muſt be given, and wrought off with weak camomile tea. Strong vomits are ſeldom neceſſary here. A ſcruple, or at moſt, half a drachm of ipecacuanha, is generally ſufficient for an adult, and ſometimes a few grains will ſuffice. The day after the

rag, afterwards to dip it frequently in water, and to dridge the outſide with flour, till a cake or crust was formed around it, which prevents the water from ſoaking into it while boiling. It is then to be boiled till it becomes a hard, dry maſs, as directed above. This, when mixed with milk and water, will not only anſwer the purpoſe of food, but may likewiſe be given in clyſters.

* I lately ſaw a young man who had been ſeized with a dyſentery in North-America. Many things had been tried there for his relief, but to no purpoſe. At length, tired out with diſappointments from medicine, and reduced to ſkin and bone, he came over to Britain, rather with a view to die among his relations, than with any hopes of a cure. After taking ſundry medicines here with no better ſucceſs than abroad, I adviſed him to leave off the uſe of drugs, and to truſt entirely to a diet of milk and fruits, with gentle exerciſe. Strawberries was the only fruit he could procure at that ſeaſon. Theſe he ate with milk twice, and ſometimes thrice a-day. The conſequence was, that in a ſhort time his ſtools were reduced from upwards of twenty in a-day, to three or four, and ſometimes not ſo many. He uſed the other fruits as they came in, and was in a few weeks ſo well as to leave that part of the country where I was, with a view to return to America.

vomit, half a drachm, or two ſcruples of rhubarb muſt be taken; or, what will anſwer the purpoſe rather better, an ounce or an ounce and a half of Epſom ſalts. This doſe may be repeated every other day, for two or three times. Afterwards ſmall doſes of ipecacuanha may be taken for ſome time. Two or three grains of the powder may be mixed in a table-ſpoonful of the ſyrup of poppies, and taken three times a-day.

Theſe evacuations, and the regimen preſcribed above, will often be ſufficient to effect a cure. Should it, however, happen otherwiſe, the following aſtringent medicines may be uſed.

A clyſter of ſtarch or fat mutton-broth, with thirty or forty drops of liquid laudanum in it, may be adminiſterd twice a-day. At the ſame time an ounce of gum-arabic, and half an ounce of gum-tragacanth, may be diſſolved in an Engliſh pint of barley-water, over a ſlow fire, and a table-ſpoonful of it taken every hour.*

If theſe have not the deſired effect, the patient may take four times a day, about the bulk of a nutmeg of the *Japonic confection*, drinking after it a tea-cupful of the decoction of logwood†.

Perſons who have been cured of this diſeaſe are very liable to a relapſe; to prevent which, great circumſpection as to diet is neceſſary. The patient muſt abſtain from all fermented liquors, except now-and-then a glaſs of good wine; but he muſt drink no kind of malt liquor. He ſhould likewiſe abſtain from animal food, as fiſh and fleſh, and live principally on milk and vegetables.

Gentle exerciſe and wholeſome air are likewiſe of importance. The patient ſhould go to the country as ſoon as his ſtrength will permit, and take exerciſe daily on horſeback, or in a carriage. He may likewiſe uſe bitters infuſed in wine or brandy, and may drink twice a-day a gill of lime-water mixed with an equal quantity of new milk.

When dyſenteries prevail, we would recommend a ſtrict attention to cleanlineſs, a ſpare uſe of animal food, the free uſe of ſound ripe fruits and other vegetables. The night air is to be carefully

* The indications of cure in this diſeaſe are more effectually anſwered, by giving a drachm of Glauber ſalts every hour, ſo as to clear the bowels of hardened excrement, by exciting briſk purging. This plan ſhould be continued until the griping and teneſmus ſubſide, interpoſing every night at bed-time one or two grains of opium, combined with two or three of ipecacuanha to quiet the bowels and promote perſpiration. If the patient cannot take ſalts, one table ſpoonful of caſtor oil ſhould be given, and repeated every two or three hours, until it produces the deſired effect of rendering the ſtools more copious; and after they appear in lumps or balls, the cure muſt be followed up, by giving infuſion of bark, as frequent and in as large doſes as the ſtomach will bear. This practice is equally applicable to children, by accommodating the doſes of medicin to their age. (I. C.)

† See Appendix, Decoction of Logwood.

avoided, and all communication with the ſick. Bad ſmells are to be ſhunned, eſpecially thoſe which ariſe from putrid animal ſubſtances. The neceſſaries where the ſick go ſhould be carefully avoided by thoſe in health.

Sundry other fluxes of the belly, as the LIENTERY and CŒLIAC PASSION, though leſs dangerous than the dyſentery, yet merit conſideration. Theſe diſeaſes generally proceed from a relaxed ſtate of the ſtomach and inteſtines, which is ſometimes ſo great, that the food paſſes through them without almoſt any ſenſible alteration; and the patient dies merely from the want of nouriſhment.

When the lientery or cœliac paſſion ſucceeds to a dyſentery, the caſe is bad. They are always dangerous in old age, eſpecially when the conſtitution has been broken by exceſs or acute diſeaſes. If the ſtools be very frequent, and quite crude, the thirſt great, with little urine, the mouth ulcerated, and the face marked with ſpots of different colours, the danger is very great.

The treatment of the patient is in general the ſame as in the dyſentery. In all obſtinate fluxes of the belly, the cure muſt be attempted, by firſt cleanſing the ſtomach and bowels with gentle vomits and purges; afterwards, ſuch diet as has a tendency to heal and ſtrengthen the bowels, with opiates and aſtringent medicines, will generally perfect the cure.

The ſame obſervation holds with reſpect to a TENESMUS, or frequent deſire of going to ſtool. This diſeaſe reſembles the dyſentery ſo much, both in its ſymptoms and method of cure, that we think it needleſs to inſiſt upon it.

## CHAPTER XXXVI.

### *Of the Head-Ach.*

ACHS and pains proceed from very different cauſes, and may affect any part of the body; but we ſhall point out thoſe only which occur moſt frequently, and are attended with the greateſt danger.

When the head-ach is ſlight, and affects a particular part of the head only, it is called *cephalalgia*; when the whole head is affected, *cephalæa*; and when on one ſide only, *hemicrania*. A fixed pain in the forehead, which may be covered with the end of the thumb, is called the *clavis hyſtericus*.

There are alſo other diſtinctions. Sometimes the pain is internal, ſometimes external; ſometimes it is an original diſeaſe, and at other times only ſymptomatic. When the head-ach proceeds from a hot bilious habit, the pain is very acute and throbbing, with a conſiderable heat of the part affected. When from a cold

phlegmatic habit, the patient complains of a dull heavy pain, and has a ſenſe of coldneſs in the part. This kind of head-ach is ſometimes attended with a degree of ſtupidity or folly.

Whatever obſtructs the free circulation of the blood through the veſſels of the head, may occaſion a head-ach. In perſons of a full habit, who abound with blood, or other humours, the head-ach often proceeds from the ſuppreſſion of cuſtomary evacuations; as bleeding at the noſe, ſweating of the feet, &c. It may likewiſe proceed from any cauſe that determines a great flux of blood towards the head; as coldneſs of the extremities, or hanging down the head for a long time. Whatever prevents the return of the blood from the head will occaſion a head-ach; as looking long obliquely at any object, wearing any thing tight about the neck, or the like.

When a head-ach proceeds from the ſtoppage of a running at the noſe, there is a heavy, obtuſe, preſſing pain in the fore-part of the head, in which there ſeems to be ſuch a weight, that the patient can ſcarce hold it up. When it is occaſioned by the cauſtic matter of the venereal diſeaſe, it generally affects the ſkull, and often produces a *caries* of the bones.

Sometimes the head-ach proceeds from the repulſion or retroceſſion of the gout, the eryſipelas, the ſmall pox, meaſles, itch, or other eruptive diſeaſes. What is called a *hemicrania* generally proceeds from crudities or indigeſtion. Inanition, or emptineſs, will alſo occaſion head-achs, as in nurſes who gave ſuck too long, or who did not take a ſufficient quantity of ſolid food.

There is likewiſe a moſt violent, fixed, conſtant, and almoſt intolerable head-ach, which occaſions great debility both of body and mind, prevents ſleep, deſtroys the appetite, cauſes a *vertigo*, dimneſs of ſight, a noiſe in the ears, convulſions, epileptic fits, and ſometimes vomiting, coſtiveneſs, coldneſs of the extremities, &c.

The head-ach is often ſymptomatic in continual and intermitting fevers, eſpecially quartans. It is likewiſe a very common ſymptom in hyſteric and hypochondriac complaints.

When a head-ach attends an acute fever, with pale urine, it is an unfavourable ſymptom. In exceſſive head-achs, coldneſs of the extremities is a bad ſign.

When the diſeaſe continues long, and is very violent, it often terminates in blindneſs, an apoplexy, deafneſs, a *vertigo*, the palſy, epilepſy, &c.

The cool regimen in general is to be obſerved. The diet ought to conſiſt of ſuch emollient ſubſtances as will correct the acrimony of the humours, and keep the body open; as apples boiled in milk, ſpinage, turnips, and ſuch-like. The drink ought to be diluting; as barley-water, infuſions of mild mucilaginous vegetables, decoctions of the ſudorific woods, &c. The feet and legs ought to be kept warm, and frequently bathed in lukewarm water; the head ſhould be ſhaved, and bathed with water and vine-

gar. The patient ought as much as poſſible to keep in an erect poſture, and not to lie with his head too low.

When the head-ach is owing to exceſs of blood, or a bilious conſtitution, bleeding is neceſſary. The patient may be bled in the jugular vein, and the operation repeated if there be occaſion. Cupping alſo, or the application of leeches to the temples, and behind the ears, will be of ſervice. Afterwards a bliſter may be applied to the neck, behind the ears, or to any part of the head that is moſt affected. In ſome caſes it will be proper to bliſter the whole head. In perſons of a groſs habit, iſſues or perpetual bliſters will be of ſervice. The body ought likewiſe to be kept open by gentle laxatives.

But when there is a dull, heavy, continual pain in the head, which will neither yield to bleeding nor gentle laxatives, then more powerful purgatives are neceſſary, as pills made of aloes, reſin of jalap, or the like. It will alſo be neceſſary in this caſe to bliſter the whole head, and to keep the back part of the neck open for a conſiderable time by a perpetual bliſter.

When the head-ach is occaſioned by the ſtoppage of a running at the noſe, the patient ſhould frequently ſmell to a bottle of volatile ſalts; he may likewiſe take ſnuff, or any thing that will irritate the noſe, ſo as to promote a diſcharge from it; as the herb maſtich, ground-ivy, &c.

A *hemicrania*, eſpecially a periodical one, is generally owing to a foulneſs of the ſtomach, for which gentle vomits muſt be adminiſtered, as alſo purges of Glauber ſalts or jalap. After the bowels have been ſufficiently cleared, chalybeate waters, and ſuch bitters as ſtrengthen the ſtomach, will be neceſſary.

When the head-ach is ſo intolerable as to endanger the patient's life, or is attended with continual watching, delirium, &c. recourſe muſt be had to opiates. Theſe, after proper evacuations by clyſters or mild purgatives, may be applied both externally and internally. The affected part may be rubbed with Bate's anodyne balſam, or a cloth dipped in it may be applied to the part. The patient may, at the ſame time, take twenty drops of laudanum, in a cup of valerian or penny-royal tea, twice or thrice a-day. This is only to be done in caſe of extreme pain. Proper evacuations ought always to accompany and follow the uſe of opiates*.

When the patient cannot bear the loſs of blood, his feet ought frequently to be bathed in luke-warm water, and well rubbed with a coarſe cloth. Cataplaſms with muſtard or horſeradiſh ought likewiſe to be applied to them. This courſe is peculiarly neceſſary when the pain proceeds from a gouty humour affecting the head.

* When the pain is very violent, and does not yield to ſmall doſes of laudanum, the quantity may be increaſed. I have known a patient in extreme pain take three hundred drops in twenty-four hours; but ſuch doſes ought only to be adminiſtered by perſons of ſkill.

When the head-ach is occaſioned by great heat, hard labour, or violent exerciſe of any kind, it may be allayed by cooling medicines; as the ſaline draughts with nitre, and the like.

A little of Ward's eſſence, dropt into the palm of the hand, and applied to the forehead, will ſometimes remove a violent head-ach; and ſo will æther, when applied in the ſame manner.

## *Of the Tooth-Ach.*

THIS diſeaſe needs no deſcription. It has great affinity with the rheumatiſm, and often ſucceeds pains of the ſhoulders and other parts of the body.

It may proceed from obſtructed perſpiration, or any of the other cauſes of inflammation, from neglecting ſome part of the uſual coverings of the head; or from ſitting with the head bare near an open window, or expoſing it any how to a draught of cold air. Food or drink taken either too hot or too cold is very hurtful to the teeth. Great quantities of ſugar, or other ſweet-meats, are likewiſe hurtful. Nothing is more deſtructive to the teeth than cracking nuts, or chewing any kind of hard ſubſtances. Picking the teeth with pins, needles, or any thing that may hurt the enamel with which they are covered, does great miſchief, as the tooth is ſure to be ſpoiled whenever the air gets into it. Breeding women are very ſubject to the tooth-ach, eſpecially during the firſt three or four months of pregnancy. The tooth-ach often proceeds from ſcorbutic humours affecting the gums. In this caſe, the teeth are ſometimes waſted, and fall out without any conſiderable degree of pain. The more immediate cauſe of the tooth-ach is a rotten or *carious* tooth.

In order to relieve the tooth-ach, we muſt firſt endeavour to leſſen the flux of humours to the part affected. This may be done by mild purgatives, ſcarifying the gums, or applying leeches to them, and bathing the feet frequently with warm water. The perſpiration ought likewiſe to be promoted, by drinking freely of weak wine-whey, or other diluting liquors, with ſmall doſes of nitre. Vomits, too, have often an exceeding good effect in the tooth-ach. It is ſeldom ſafe to adminiſter opiates, or any kind of heating medicines, or even to draw a tooth, till proper evacuations have been premiſed; and theſe alone will often effect the cure.

If this fails, and the pain and inflammation ſtill increaſe, a ſuppuration may be expected; to promote which, a toaſted fig ſhould be held between the gum and the cheek; bags filled with boiled camomile flowers, flowers of elder, or the like, may be applied near the part affected, with as great a degree of warmth as the patient can bear, and renewed as they grow cool: the patient

may likewiſe receive the ſteams of warm water into his mouth, through an inverted funnel, or by holding his head over the mouth of a porringer filled with warm water, &c.

Such things as promote the diſcharge of ſaliva, or cauſe the patient to ſpit, are generally of ſervice. For this purpoſe, bitter, hot, or pungent vegetables may be chewed; as gentian, calamus aromaticus, or pellitory of Spain. Allen recommends the root of *yellow water flour-de-luce* in this caſe. This root may either be rubbed upon the tooth, or a little of it chewed. Brookes ſays he hardly ever knew it fail to eaſe the tooth-ach. It ought however to be uſed with caution.

Many other herbs, roots and ſeeds, are recommended for curing the tooth-ach; as the leaves or roots of millefoil or yarrow chewed, tobacco ſmoked or chewed, ſtaves acre, or the ſeeds of muſtard chewed, &c. Theſe bitter, hot, and pungent things, by occaſioning a greater flow of *ſaliva,* frequently give eaſe in the tooth-ach.

Opiates often relieve the tooth-ach. For this purpoſe, a little cotton wet with laudanum may be held between the teeth; or a piece of ſticking-plaiſter, about the bigneſs of a ſhilling, with a bit of opium in the middle of it, of a ſize not to prevent the ſticking of the other, may be laid on the temporal artery, where the pulſation is moſt ſenſible. *De la Motte* affirms, that there are few caſes wherein this will not give relief. If there be a hollow tooth, a ſmall pill made of equal parts of camphire and opium, put into the hollow, is often beneficial. When this cannot be had, the hollow tooth may be filled with gum maſtich, wax, lead, or any ſubſtance that will ſtick in it, and keep out the external air.

Few applications give more relief in the tooth-ach than a bliſter applied between the ſhoulders; or rather put behind the ears, and made ſo large as to cover a great part of the lower jaw.

When a tooth is carious, it is often impoſſible to remove the pain without extracting it; and, as a ſpoilt tooth never becomes ſound again, it is prudent to draw it ſoon, leſt it ſhould affect the reſt. Tooth-drawing, like bleeding, is very much practiſed by mechanics; the operation is not without danger, and ought always to be performed with care. A perſon unacquainted with the ſtructure of the parts will be in danger of hurting the jaw-bone, or of drawing a ſound tooth inſtead of a rotten one*.

When the tooth-ach returns periodically, and the pain chiefly affects the gums, it may be cured by the bark.

Some pretend to have found great benefit from the application of an artificial magnet. If it be found to anſwer, though only in particular caſes, it certainly deſerves a trial, as it is attended with

* This may always be prevented by the operator ſtriking upon the teeth with any piece of metal, as this never fails to excite pain in the carious tooth.

no expence, and no harm. Electricity has likewiſe been recommended, and particular inſtruments have been invented for ſending a ſhock through the affected tooth.

Perſons who have returns of the tooth-ach at certain ſeaſons, as ſpring and autumn, might often prevent it by taking a purge at theſe times.

Keeping the teeth clean tends to prevent the tooth-ach. The beſt method is to waſh them daily with ſalt and water, a decoction of the bark, or with cold water alone. All bruſhing and ſcraping of the teeth is dangerous, and unleſs it be performed with great care, does miſchief.

## *Of the Ear-Ach.*

THIS diſorder chiefly affects the membrane which lines the inner cavity of the ear called the *meatus auditorius*. It often occaſions great reſtleſſneſs, anxiety, and even delirium. Epileptic fits, and other convulſive diſorders, have been brought on by extreme pain in the ear.

The ear-ach may proceed from any of the cauſes which produce inflammation. It often proceeds from a ſudden ſuppreſſion of perſpiration, or from the head being expoſed to cold when covered with ſweat; or from worms, or other inſects getting into the ear, or being bred there; or from any hard body ſticking in the ear. Sometimes it proceeds from the tranſlation of morbific matter to the ear. This often happens in the decline of malignant fevers, and occaſions deafneſs, which is generally reckoned a favourable ſymptom.

When the ear-ach proceeds from inſects, or any hard body ſticking in the ear, every method muſt be taken to remove them as ſoon as poſſible. The membranes may be relaxed by dropping into the ear, oil of ſweet almonds, or olive oil. Afterwards the patient ſhould be made to ſneeze, by taking ſnuff, or ſome ſtrong ſternutatory. If this ſhould not force out the body, it muſt be extracted by art. I have ſeen inſects, which had got into the ear, come out of their own accord upon pouring in oil, which they cannot bear.

When the pain of the ear proceeds from inflammation, it muſt be treated like other topical inflammations, by a cooling regimen, and opening medicines. Bleeding at the beginning, either in the arm or jugular vein, or cupping in the neck, will be proper. The ear may likewiſe be fomented with ſteams of warm water; or flannel bags filled with boiled mallows and camomile flowers may be applied to it warm; or bladders filled with warm milk and water. An exceeding good method of fomenting the

ear is to apply it close to the mouth of a jug filled with warm water, or a strong decoction of camomile-flowers.

The patient's feet should be frequently bathed in lukewarm water, and he ought to take small doses of nitre and cream tartar, half a drachm of the latter, and ten grains of the former three times a-day. His drink may be whey, or a decoction of barley and liquorice with figs or raisins. The parts behind the ear ought frequently to be rubbed with camphorated oil, or a little of the volatile liniment.

When the inflammation cannot be discussed, a poultice of bread and milk, or roasted onions, may be applied to the ear, and frequently renewed, till the abscess breaks, or can be opened. Afterwards the humours may be diverted from the part by gentle laxatives, blisters, or issues; but the discharge must not be suddenly dried up by any external application.

## *Pain of the Stomach, &c.*

THIS may proceed from various causes; as indigestion; wind; the acrimony of the bile; sharp, acrid, or poisonous substances taken into the stomach, &c. It may likewise be occasioned by worms; the stoppage of customary evacuations; a translation of gouty matter to the stomach, the bowels, &c.

Women in the decline of life are very liable to pains of the stomach and bowels, especially such as are afflicted with hysteric complaints. It is likewise very common to hypochondriac men of a sedentary and luxurious life. In such persons, it often proves so extremely obstinate as to baffle medicine.

When the pain of the stomach is most violent after eating, there is reason to suspect that it proceeds from some fault either in the digestion or the food. In this case, the patient ought to change his diet, till he finds what kind of food agrees best with his stomach, and should continue chiefly to use it. If a change of diet does not remove the complaint, the patient may take a gentle vomit, and afterwards a dose or two of rhubarb. He ought likewise to take an infusion of camomile flowers, or some other stomachic bitter, either in wine or water. I have often known exercise remove this complaint, especially sailing, or a long journey on horseback, or in a carriage.

When a pain of the stomach proceeds from flatulency, the patient is constantly belching up wind, and feels an uneasy distention of the stomach after meals. This is the most deplorable disease, and is seldom thoroughly cured. In general, the patient ought to avoid all windy diet, and every thing that sours on the stomach, as greens, roots, &c. This rule admits of some exceptions. Ma-

ny perſons very much troubled with wind, have received great benefit from eating parched peaſe, though that grain is generally ſuppoſed to be of a windy nature*.

This complaint may likewiſe be greatly relieved by labour, eſpecially digging, reaping, mowing, or any kind of active employment by which the bowels are alternately compreſſed and dilated. The moſt obſtinate caſe of this kind I ever met with, was in a perſon of a ſedentary occupation, whom I adviſed, after he had tried every kind of medicine in vain, to turn gardener; which he did, and has ever ſince enjoyed good health.

When a pain of the ſtomach is occaſioned by the ſwallowing of acrid or poiſonous ſubſtances, they muſt be diſcharged by vomit; this may be excited by butter, oils, or other ſoft things, which ſheath and defend the ſtomach from the acrimony of its contents.

When a pain of the ſtomach proceeds from a tranſlation of gouty matter, warm cordials are neceſſary, as generous wines, French brandy, &c. Some in this caſe have drank a whole bottle of brandy or rum in a few hours, without being in the leaſt intoxicated, or even feeling the ſtomach warmed by it. It is impoſſible to aſcertain the quantities neceſſary upon theſe occaſions. This muſt be left to the feelings and diſcretion of the patient. The ſafer way, however, is, not to go too far. When there is an inclination to vomit, it may be promoted by drinking an infuſion of camomile flowers, or *carduus benedictus*.

If a pain of the ſtomach proceeds from the ſtoppage of cuſtomary evacuations, bleeding will be neceſſary, eſpecially in ſanguine and very full habits. It will likewiſe be of uſe to keep the body gently open by mild purgatives; as caſtor oil, ſenna, &c. When this diſeaſe affects women, in the decline of life, after the ſtoppage of the *menſes*, making an iſſue in the leg or arm will be of peculiar ſervice.

When the diſeaſe is occaſioned by worms, they muſt be deſtroyed, or expelled by means recommended in the following ſection:

When the ſtomach is greatly relaxed, and the digeſtion bad, which often occaſion flatulencies, the elixir of vitriol will be of ſingular ſervice. Fifteen or twenty drops of it may be taken in a glaſs of wine or water twice or thrice a-day.

Perſons afflicted with flatulency are generally unhappy unleſs they be taking ſome purgative medicines; theſe, though they may give immediate eaſe, weaken and relax the ſtomach and bowels, and conſequently increaſe the diſorder. Their beſt method is to mix purgatives and ſtomachics together. Equal parts of bark and rhubarb may be infuſed in brandy, or wine, and taken in ſuch quantity as to keep the body gently open.

* Theſe are prepared by ſteeping or ſoaking peaſe in water, and afterwards drying them in a pot or kiln till they become quite hard. They may be uſed at pleaſure.

# CHAPTER XXXVII.

## *Of Worms.*

THESE are chiefly of three kinds, *viz.* the *tænia*, or tape-worm; the *teres*, or round and long worm; and the *aſcarides*, or round or ſhort worm. There are many other kinds of worms found in the human body; but as they proceed, in a great meaſure, from ſimilar cauſes, have nearly the ſame ſymptoms, and require almoſt the ſame method of treatment as theſe already mentioned, we ſhall not ſpend time in enumerating them.

The tape-worm is white, very long, and full of joints. It is generally bred either in the ſtomach or ſmall inteſtines. The round and long worm is likewiſe bred in the ſmall guts, and ſometimes in the ſtomach. The round and ſhort worms commonly lodge in the *rectum*, or what is called the end gut, and occaſion a diſagreeable itching about the ſeat.

The long round worms occaſion ſqueamiſhneſs, vomiting, a diſagreeable breath, gripes, looſeneſs, ſwelling of the belly, ſwoonings, loathing of food, and at other times a voracious appetite, a dry cough, convulſions, epileptic fits, and ſometimes a privation of ſpeech. Theſe worms have been known to perforate the inteſtines, and get into the cavity of the belly. The effects of the tape-worm are nearly the ſame with thoſe of the long and round, but rather more violent.

Andry ſays, the following ſymptoms particularly attend the *folium*, which is a ſpecies of the tape-worm, *viz.* ſwoonings, privation of ſpeech and a voracious appetite. The round worms called *aſcarides*, beſides an itching of the *anus*, cauſe ſwoonings, and teneſmus, or an inclination to go to ſtool.

CAUSES.——Worms may proceed from various cauſes, but they are ſeldom found except in relaxed ſtomachs, where the digeſtion is bad. Sedentary perſons are more liable to them than the active and laborious. Thoſe who eat great quantities of unripe fruit, or who live much on raw herbs and roots, are generally ſubject to worms. There ſeems to be a hereditary diſpoſition in ſome perſons to this diſeaſe. I have often ſeen all the children of a family ſubject to worms of a particular kind. They ſeem likewiſe frequently to be owing to the nurſe. Children of the ſame family, nurſed by one woman, have often worms, when thoſe nurſed by another have none.

SYMPTOMS.——The common ſymptoms of worms are, paleneſs of the countenance, and at other times, an univerſal flushing of the face; itching of the noſe; this however is doubtful, as children pick their noſes in all diſeaſes; ſtarting, and grinding of the teeth in ſleep; ſwelling of the upper lip; the appetite

ſometimes bad, at other times quite voracious; looſeneſs; a ſour or ſtinking breath; a hard ſwelled belly; great thirſt; the urine frothy, and ſometimes of a whitiſh colour; griping, or colic pains; an involuntary diſcharge of *ſaliva*, eſpecially when aſleep; frequent pains of the ſide, with a dry cough, and unequal pulſe; palpitations of the heart; ſwoonings; drowſineſs; cold ſweats; palſy; epileptic fits, with many other unaccountable nervous ſymptoms, which were formerly attributed to witchcraft, or the influence of evil ſpirits. Small bodies in the excrements reſembling melon or cucumber ſeeds are ſymptoms of the tape-worm.

I lately ſaw ſome very ſurpriſing effects of worms in a girl about five years of age, who uſed to lie for whole hours as if dead. She at laſt expired, and, upon opening her body, a number of the *teres*, or long round worms, were found in her guts, which were conſiderably inflamed; and what anatomiſts call an *intus ſuſceptio*, or involving of one part of the gut within another, had taken place in no leſs than four different parts of the inteſtinal canal.*

MEDICINE.——Though numberleſs medicines are extolled for expelling and killing worms,† yet no diſeaſe more frequently baffles the phyſician's ſkill. In general, the moſt proper medicines for their expulſion are ſtrong purgatives; and to prevent their breeding, ſtomachic bitters, with now and then a glaſs of good wine.

The beſt purge for an adult is jalap and calomel. Five and twenty or thirty grains of the former with ſix or ſeven of the latter, mixed in ſyrup, may be taken early in the morning, for a doſe. It will be proper that the patient keep the houſe all day, and drink nothing cold. The doſe may be repeated once or twice a week, for a fortnight or three weeks. On the intermediate days, the patient may take a drachm of the powder of tin, twice or thrice a-day, mixed with ſyrup or honey.

Thoſe who do not chuſe to take calomel may make uſe of the bitter purgatives; as aloes, hiera picra, tincture of ſenna, and rhubarb, &c.

Oily medicines are ſometimes found beneficial for expelling worms. An ounce of ſallad oil and a table-ſpoonful of common ſalt may be taken in a glaſs of red port wine thrice a-day or oftener, if the ſtomach will bear it. But the more common form of uſing oil is in clyſters. Oily clyſters ſweetened with ſugar or ho-

* That worms exiſt in the human body, there can be no doubt; and that they muſt ſometimes be conſidered as a diſeaſe, is equally certain: but this is not the caſe ſo often as people imagine. The idea that worms occaſion many diſeaſes, gives an opportunity to the profeſſed worm-doctors of impoſing on the credulity of mankind, and doing much miſchief. They find worms in every caſe, and liberally throw in their antidotes, which generally conſiſt of ſtrong draſtic purges: I have known theſe given in delicate conſtitutions to the deſtruction of the patient, where there was not the leaſt ſymptom of worms.

† A medical writer, of the preſent age, has enumerated upwards of fifty Britiſh plants, all celebrated for killing and expelling worms.

ney, are very efficacious in bringing away the ſhort round worms called *aſcarides*, and likewiſe the *teres*.

The Harrowgate water is an excellent medicine for expelling worms, eſpecially the *aſcarides*. As this water is impregnated with ſulphur, we may hence infer, that ſulphur alone muſt be a good medicine in this caſe; which is found to be a fact. Many practitioners give flour of ſulphur in very large doſes, and with great ſucceſs. It ſhould be made into an electuary with honey or treacle, and taken in ſuch quantity as to purge the patient.

Where Harrowgate water cannot be obtained, ſea-water may be uſed. If ſea-water cannot be had, common ſalt diſſolved in water may be drank. I have often ſeen this uſed by country nurſes with very good effect. Some flour of ſulphur may be taken over night, and the ſalt-water in the morning.

But worms, though expelled, will ſoon breed again, if the ſtomach remains weak and relaxed; to prevent which, we would recommend the bark. Half a drachm of bark in powder may be taken in a glaſs of red Port wine three or four times a-day, after the above medicines have been uſed. Lime-water is likewiſe good for this purpoſe, or a table-ſpoonful of the chalybeate wine taken twice or thrice a-day. Infuſions or decoctions of bitter herbs may likewiſe be drank; as the infuſions of tanſy, water trefoil, camomile-flowers, tops of wormwood, the leſſer centaury, &c.

For a child of four or five years old, ſix grains of rhubarb, five of jalap, and two of calomel, may be mixed in a ſpoonful of ſyrup or honey, and given in the morning. The child ſhould keep the houſe all day, and take nothing cold. This doſe may be repeated twice a-week for three or four weeks. On the intermediate days, the child may take a ſcruple of powdered tin, and ten grains of æthiops mineral in a ſpoonful of treacle twice a-day. This doſe muſt be increaſed or diminiſhed according to the age of the patient.

Biſſet ſays, the great baſtard black hellebore, or *bear's foot*, is a moſt powerful vermifuge for the long round worms. He orders the decoction of about a drachm of the green leaves, or about fifteen grains of the dried leaves in powder, for a doſe to a child between four and ſeven years of age. This doſe is to be repeated two or three times. He adds, that the green leaves, made into a ſyrup, with coarſe ſugar, is almoſt the only medicine he has uſed for round worms for three years paſt. Before preſſing out the juice, he moiſtens the bruiſed leaves with vinegar, which corrects the medicine. The doſe is a tea-ſpoonful at bed-time, and one or two next morning.

I have frequently known theſe big bellies, which in children are commonly reckoned a ſign of worms, quite removed, by giving them white ſoap in their pottage, or other food. Tanſy, garlic, and rue, are all againſt worms, and may be uſed various ways. We might here mention many other plants, both for external and in-

ternal uſe, as the cabbage-bark, &c. but think the powder of tin, and the purges of jalap and calomel, are more to be depended on.

Ball's purging vermifuge powder is a very powerful medicine. It is made of equal parts of rhubarb, ſcammony, and calomel, with as much double-refined ſugar as is equal to the weight of all the other ingredients. Theſe muſt be well mixed together, and reduced to a fine powder. The doſe for a child, is from ten grains to twenty, once or twice a-week. An adult may take a drachm for a doſe*.

Parents, who would preſerve their children from worms, ought to allow them plenty of exerciſe in the open air; to take care that their food be wholeſome and ſufficiently ſolid; and as far as poſſible, to prevent their eating raw herbs, roots, or green traſhy fruits. It will not be amiſs to allow a child who is ſubject to worms, a glaſs of red wine after meals; as every thing that braces and ſtrengthens the ſtomach, is good both for preventing and expelling theſe vermin†.

## CHAPTER XXXVIII.

### *Of the Jaundice.*

THIS diſeaſe is firſt obſervable in the white of the eye, which appears yellow. Afterwards the whole ſkin puts on a yellow appearance. The urine too is of a ſaffron hue, and dies a white cloth of the ſame colour. There is likewiſe a ſpecies of this diſeaſe called the black jaundice.

CAUSES.——The immediate cauſe of the jaundice is an obſtruction of the bile. The remote or occaſional cauſes are, the bites of poiſonous animals, as the viper, mad dog, &c. the bilious or hyſteric colic; violent paſſions, as grief, anger, &c. Strong purges or vomits will likewiſe occaſion the jaundice. Sometimes it proceeds from obſtinate agues, or from that diſeaſe being prematurely ſtopped by aſtringent medicines. In infants, it is often occa-

* A powder for the tape-worm reſembling this was long kept a ſecret on the continent; it was lately purchaſed by the French King, and will be found under the article *Powder*, in the Appendix.

† It is neceſſary to warn people of their danger who buy cakes, powders, and other worm medicines, at random, from quacks, and give them to their children without proper care. The principal ingredient in moſt of theſe medicines is mercury, which is never to be trifled with. I lately ſaw a ſhocking inſtance of the danger of this conduct. A girl who had taken a doſe of worm powder, bought of a travelling quack, went out, and perhaps was ſo imprudent as to drink cold water during its operation. She immediately ſwelled, and died on the following day, with all the ſymptoms of having been poiſoned.

ſioned by the *meconium* not being ſufficiently purged off. Pregnant women are very ſubject to it. It is likewiſe a ſymptom in ſeveral kinds of fever. Catching cold, or the ſtoppage of cuſtomary evacuations, as the menſes, the piles, iſſues, &c. will occaſion the jaundice.

SYMPTOMS.——The patient at firſt complains of exceſſive wearineſs, and has great averſion to every kind of motion. His ſkin is dry, and he generally feels a kind of itching or pricking pain over the whole body. The ſtools are of a whitiſh or clay colour, and the urine, as was obſerved above, is yellow. The breathing is difficult, and the patient complains of an unuſual load or oppreſſion on his breaſt. There is a heat in the noſtrils, a bitter taſte in the mouth, loathing of food, ſickneſs at the ſtomach, vomiting, flatulency, and other ſymptoms of indigeſtion.

If the patient be young, and the diſeaſe complicated with no other malady, it is ſeldom dangerous; but in old people, where it continues long, returns frequently, or is complicated with the dropſy, or hypochondriac ſymptoms, it generally proves fatal.

REGIMEN.——The diet ſhould be cool, light, and diluting, conſiſting chiefly of ripe fruits and mild vegetables; as apples boiled or roaſted, ſtewed prunes, preſerved plumbs, boiled ſpinage, &c. Veal or chicken-broth, with light bread, are likewiſe very proper. Many have been cured by living almoſt wholly for ſome days on raw eggs. The drink ſhould be butter-milk, whey ſweetened with honey, or decoctions of cool opening vegetables; or marſh-mallow roots, with liquorice, &c.

The patient ſhould take as much exerciſe as he can bear, either on horſeback, or in a carriage; walking, running, and even jumping, are likewiſe proper, provided he can bear them without pain, and there be no ſymptoms of inflammation. Patients have been often cured of this diſeaſe by a long journey, after medicines had proved ineffectual.

Amuſements are likewiſe of great uſe in the jaundice. The diſeaſe is often occaſioned by a ſedentary life, joined to a dull melancholy diſpoſition. Whatever therefore tends to promote the circulation, and to cheer the ſpirits, muſt have a good effect; as dancing, laughing, ſinging, &c.

MEDICINE.——If the patient be young, of a full ſanguine habit, and complains of pain in the right ſide about the region of the liver, bleeding will be neceſſary. After this a vomit muſt be adminiſtered, and if the diſeaſe proves obſtinate, it may be repeated once or twice. No medicines are more beneficial in the jaundice than vomits, eſpecially where it is not attended with inflammation. Half a drachm of ipecacuanha in powder will be a ſufficient doſe for an adult. It may be wrought off with weak camomile-tea, or lukewarm water. The body muſt likewiſe be kept open by taking a ſufficient quantity of Caſtile ſoap, or the pills for the jaundice recommended in the appendix.

Fomenting the parts about the region of the ſtomach and liver, and rubbing them with a warm hand or fleſh-bruſh, are likewiſe beneficial; but it is ſtill more ſo for the patient to ſit in a bath of warm water up to the breaſt. He ought to do this frequently, and ſhould continue in it as long as his ſtrength will permit.

Many dirty things are recommended for the cure of the jaundice; as lice, millepedes, &c. But theſe do more harm than good, as people truſt to them, and neglect more valuable medicines; beſides, they are ſeldom taken in ſufficient quantity to produce any effects. People always expect that ſuch things ſhould act as charms, and conſequently ſeldom perſiſt in the uſe of them. Vomits, purges, fomentations, and exerciſe, will ſeldom fail to cure the jaundice when it is a ſimple diſeaſe; and when complicated with the dropſy, a ſchirrous liver, or other chronic complaints, it is hardly to be cured by any means.

Numberleſs Britiſh herbs are extolled for the cure of this diſeaſe. The author of the *Medicina Britannica* mentions near a hundred, all famous for curing the jaundice. The diſeaſe often goes off of its own accord; in which caſe, the laſt medicine is always ſaid to have performed the cure. I have ſeen conſiderable benefit, in a very obſtinate jaundice, from a decoction of hempſeed. Four ounces of the ſeed may be boiled in two Engliſh quarts of ale, and ſweetened with coarſe ſugar. The doſe is half an Engliſh pint every morning. It may be continued for eight or nine days.

I have likewiſe known Harrowgate ſulphur water cure a jaundice of very long ſtanding. It ſhould be uſed for ſome weeks, and the patient both drink and bathe.

The ſoluble tartar is a very proper medicine in the jaundice. A drachm of it may be taken every night and morning in a cup of tea or water-gruel. If it does not open the body, the doſe may be increaſed. A very obſtinate jaundice has been cured by ſwallowing raw eggs.

Perſons ſubject to the jaundice ought to take as much exerciſe as poſſible, and to avoid all heating and aſtringent aliments.

## CHAPTER XXXIX.

### *Of the Dropſy.*

THE dropſy is a preternatural ſwelling of the whole body, or ſome part of it, occaſioned by a collection of watery humour. It is diſtinguiſhed by different names, according to the part affected, as the *anaſarca*, or a collection of water under the ſkin; the *aſcites*, or a collection of water in the belly; the *hydrops pectoris*, or dropſy of the breaſt; the *hydrocephalus*, or dropſy of the brain, &.

CAUSES.——The dropsy is often owing to an hereditary disposition. It may proceed from drinking ardent spirits, or other strong liquors. It is true almost to a proverb, that great drinkers die of a dropsy. Hence it is justly reckoned among the diseases of the sedentary. It often proceeds from excessive evacuations, as frequent and copious bleedings, strong purges often repeated, frequent salivations, &c. The sudden stoppage of customary or necessary evacuations, as the *menses*, the hæmorrhoids, fluxes of the belly, &c. may likewise cause a dropsy.

I have known the dropsy occasioned by drinking large quantities of cold, weak, watery liquor, when the body was heated by violent exercise. A low, damp, or marshy situation is likewise a frequent cause of it. Hence it is a common disease in moist, flat, fenny countries. It may also be brought on by a long use of poor watery diet, or of viscous aliment that is hard of digestion. It is often the effect of other diseases, as the jaundice, a schirrus of the liver, a violent ague of long continuance, a diarrhœa, a dysentery, an empyema, or a consumption of the lungs. In short, whatever obstructs the perspiration, or prevents the blood from being duly prepared, may occasion a dropsy.

SYMPTOMS.——The *anasarca* generally begins with a swelling of the feet and ancles towards night, which for some time disappears in the morning. In the evening, the parts, if pressed with the finger, will pit. The swelling gradually ascends, and occupies the trunk of the body, the arms and the head. Afterwards the breathing becomes difficult, the urine is in small quantity, and the thirst great; the body is bound, and the perspiration is greatly obstructed. To these succeed torpor, heaviness, a slow wasting fever, and a troublesome cough. This last is generally a fatal symptom, as it shows that the lungs are affected.

In an *ascites*, besides the above symptoms, there is a swelling of the belly, and often a fluctuation, which may be perceived by striking the belly on one side, and laying the palm of the hand on the opposite. This may be distinguished from a *tympany* by the weight of the swelling, as well as by the fluctuation. When the *anasarca* and *ascites* are combined, the case is very dangerous. Even a simple *ascites* seldom admits of a radical cure. Almost all that can be done is, to let off the water by tapping, which seldom affords more than a temporary relief.

When the disease comes suddenly on, and the patient is young and strong, there is reason however to hope for a cure, especially if medicine be given early. But if the patient be old, has led an irregular or a sedentary life, or if there be reason to suspect that the liver, lungs, or any of the viscera are unsound, there is great ground to fear that the consequences will prove fatal.

REGIMEN.——The patient must abstain, as much as possible, from all drink, especially weak and watery liquors, and must quench his thirst with mustard-whey, or acids, as juice of lemons, oranges,

ſorrel, or ſuch like. His aliment ought to be dry, of a ſtimulating diuretic quality, as toaſted bread, the fleſh of birds, or other wild animals roaſted; pungent and aromatic vegetables, as garlic, muſtard, onions, creſſes, horſe-radiſh, rocambole, ſhalot, &c. He may alſo eat ſea-biſcuit dipt in wine or a little brandy. This is not only nouriſhing but tends to quench thirſt. Some have been actually cured of a dropſy by a total abſtinence from all liquids, and living entirely upon ſuch things as are mentioned above. If the patient muſt have drink, the Spa-water, or Rheniſh wine, with diuretic medicines infuſed in it, are the beſt.

Exerciſe is of the greateſt importance in a dropſy. If the patient be able to walk, dig, or the like, he ought to continue theſe exerciſes as long as he can. If he is not able to walk or labour, he muſt ride on horſeback, or in a carriage, and the more violent the motion, ſo much the better, provided he can bear it. His bed ought to be hard, and the air of his apartments warm and dry. If he lives in a damp country, he ought to be removed into a dry one, and, if poſſible, into a warmer climate. In a word, every method ſhould be taken to promote the perſpiration, and to brace the ſolids. For this purpoſe it will likewiſe be proper to rub the patient's body, two or three times a-day, with a hard cloth, or the fleſh-bruſh; and he ought conſtantly to wear flannel next his ſkin.

MEDICINE.——If the patient be young, his conſtitution good, and the diſeaſe has come on ſuddenly, it may generally be removed by ſtrong vomits, briſk purges, and ſuch medicines as promote a diſcharge by ſweat and urine.* For an adult, half a drachm of ipecacuanha in powder, and half an ounce of oxymel of ſquills, will be a proper vomit. This may be repeated as often as neceſſary, three or four days intervening between the doſes. The patient muſt not drink much after taking the vomit, otherwiſe he deſtroys its effect. A cup or two of camomile-tea will be ſufficient to work it off.

Between each vomit on one of the intermediate days, the patient may take the following purge: Jalap in powder, half a drachm, cream of tartar, two drachms, calomel, ſix grains. Theſe may be made into a bolus with a little ſyrup of pale roſes, and taken early in the morning. The leſs the patient drinks after it the better. If he be much griped, he may take now and then a cup of chicken-broth.

The patient may likewiſe take every night at bed-time the following bolus: To four or five grains of camphor add one grain

* Anaſarca in young people has ſometimes been cured by bleeding when the pulſe has been full and ſtrong; but in aſcites, which moſt generally comes on at an advanced period of life, when the conſtitution is conſiderably impaired, frequently by an irregular mode of life, bleeding appears to be improper, and even in aſcites, when the patient has been young, I have ſeen this evacuation uſed early with manifeſt diſadvantage. (I. C.)

of opium, and as much syrup of orange-peel as is sufficient to make them into a bolus. This will generally promote a gentle sweat, which should be encouraged by drinking now and then a small cup of wine-whey, with a tea-spoonful of the spirits of hartshorn in it. A tea-cupful of the following diuretic infusion may likewise be taken every four or five hours through the day:

Take juniper berries, mustard-seed, and horse-radish, of each half an ounce, ashes of broom half a pound; infuse them in a quart of Rhenish wine or strong ale for a few days, and afterwards strain off the liquor. Such as cannot take this infusion, may use the decoction of seneka-root, which is both diuretic and sudorific. I have known an obstinate *anasarca* cured by an infusion of the ashes of broom in wine.

The above course will often cure an incidental dropsy, if the constitution be good; but when the disease proceeds from a bad habit, or an unsound state of the viscera, mercury should be used; and at the same time the strength supported by warm and nourishing cordials.

The secretion of urine may be greatly supported by nitre. Brookes says, he knew a young woman who was cured of a dropsy by taking a drachm of nitre every morning in a draught of ale, after she had been given over as incurable. The powder of squills is likewise a good diuretic. Six or eight grains of it, with a scruple of nitre, may be given twice a-day in a glass of strong cinnamon-water. Ball says, a large spoonful of unbruised mustard-seed taken every night and morning, and drinking half an English pint of the decoction of the tops of green broom after it, has performed a cure after other powerful medicines had proved ineffectual.

I have sometimes seen good effects from cream of tartar in this disease. It promotes the discharges by stool and urine, and will at least palliate, if it does not perform a cure. The patient may begin by taking an ounce every second or third day, and may increase the quantity to two or even to three ounces, if the stomach will bear it. This quantity is not however to be taken at once, but divided into three or four doses.

To promote perspiration, the patient may use the decoction of seneka-root, as directed above; or he may take two table-spoonfuls of Mindererus's spirit in a cup of wine-whey three or four times a-day. To promote a discharge of urine, the following infusion of the London hospitals will likewise be beneficial:

Take of zedoary-root two drachms; dried squills, rhubarb, and juniper-berries bruised, of each a drachm; cinnamon in powder, three drachms; salt of worm-wood, a drachm and a half; infuse in an English pint and a half of old hock-wine, and when fit for use, filter the liquor. A wine-glass of it may be taken three or four times a-day.

In the *anasarca* it is usual to scarify the feet and legs. By this means, the water is often discharged; but the operator must be

cautious not to make the incisions too deep: they ought barely to pierce through the skin, and especial care must be taken, by spirituous fomentations and proper digestives, to prevent a gangrene.

In an *ascites*, when the disease does not evidently and speedily give way to purgative and diuretic medicines, the water ought to be let off by tapping. This is a very simple and safe operation, and would often succeed if it were performed in due time, before the system become too much debilitated.*

After the evacuation of the water, the patient is to be put on a course of strengthening medicines; as the bark; the elixir of vitriol; warm aromatics, with a due proportion of rhubarb, infused in wine, and such like. His diet ought to be dry and nourishing, such as is recommended in the beginning of the chapter; and he should take as much exercise as he can bear without fatigue. He should wear flannel next his skin, and daily use the flesh-brush.

## CHAPTER XL.

### *Of the Gout.*

NO disease shows the imperfection of medicine, or sets the advantages of temperance and exercise in a stronger light, than the gout. Excess and idleness are the true sources from whence it originally sprung, and all who would avoid it must be *active* and *temperate*.

Though idleness and intemperance are the principal causes of the gout, yet many other things may contribute to bring on the disorder in those who are not, and to induce a paroxysm in those who are subject to it; as intense study; too free an use of acidulated liquors; night-watching; grief or uneasiness of mind; an obstruction or defect of any of the customary discharges, as the *menses*, sweating of the feet, perspiration, &c.

SYMPTOMS.——A fit is generally preceded by indigestion, drowsiness, belching of wind, a slight head-ach, sickness, and sometimes vomiting. The patient complains of weariness and dejection of spirits, and has often a pain in the limbs, with a sensation as if wind or cold water were passing down the thigh. The

* The very name of an operation is dreadful to most people, and they wish to try every thing before they have recourse to it. This is the reason why tapping so seldom succeeds to our wish. I have had a patient who was regularly tapped once a month for several years, and who used to eat her dinner as well after the operation, as if nothing had happened. She died at last rather worn out by age than by the disease.

appetite is often remarkably keen a day or two before the fit, and there is a ſlight pain in paſſing urine, and ſometimes an involuntary ſhedding of tears. Sometimes theſe ſymptoms are much more violent, eſpecially upon the near approach of a fit; and ſome obſerve, that as is the fever which uſhers in the gout, ſo will the fit be; if the fever be ſhort and ſharp, the fit will be ſo likewiſe, if it be feeble, long, and lingering, the fit will be ſuch alſo. But this obſervation can only hold with reſpect to very regular fits of the gout.

The regular gout generally makes its attack in the ſpring, or beginning of winter, in the following manner: About two or three in the morning, the patient is ſeized with a pain in his great toe, ſometimes the heel, and at other times in the ancle or calf of the leg. This pain is accompanied with a ſenſation as if cold water were poured upon the part, which is ſucceeded by a ſhivering, with ſome degree of fever. Afterwards the pain increaſes, and fixing among the ſmall bones of the foot, the patient feels all the different kinds of torture, as if the part were ſtretched, burnt, ſqueezed, gnawed, or torn in pieces, &c. The part at length becomes ſo exquiſitely ſenſible, that the patient cannot bear to have it touched, or even ſuffer any perſon to walk acroſs the room.

The patient is generally in exquiſite torture for twenty-four hours, from the time of the coming on of the fit: he then becomes eaſier, the part begins to ſwell, appears red, and is covered with a little moiſture. Towards morning he drops aſleep, and generally falls into a gentle breathing ſweat. This terminates the firſt paroxyſm, a number of which conſtitutes a fit of the gout; which is longer or ſhorter according to the patient's age, ſtrength, the ſeaſon of the year, and the diſpoſition of the body to this diſeaſe.

The patient is always worſe towards night, and eaſier in the morning. The paroxyſms generally grow milder every day, till at length the diſeaſe is carried off by perſpiration, urine, and the other evacuations. In ſome patients, a few days; in others, weeks, and in ſome, months are required to finiſh the fit. Thoſe whom age and frequent fits of the gout have greatly debilitated, ſeldom get free from it before the approach of ſummer, and ſometimes not till it be pretty far advanced.

REGIMEN.——No medicines yet known will cure the gout; we ſhall confine our obſervations chiefly to regimen, both in and out of the fit.

In the fit, if the patient be young and ſtrong, his diet ought to be thin and cooling, and his drink of a diluting nature; but where the conſtitution is weak, and the patient has been accuſtomed to live high, this is not a proper time to retrench. In this caſe, he muſt keep nearly to his uſual diet, and ſhould take frequently a cup of ſtrong negus, or a glaſs of generous wine. Wine-whey is a very proper drink in this caſe, as it promotes the perſpiration without greatly heating the patient. It will anſwer this purpoſe

better, if a tea-ſpoonful of *ſal volatile oleoſum*, or ſpirits of hartſhorn, be put into a cup of it twice a-day. It will likewiſe be proper, to give at bed-time, a tea-ſpoonful of the volatile tincture of *guaiacum* in a large draught of warm wine-whey. This will greatly promote perſpiration through the night.

As the moſt ſafe and efficacious method of diſcharging the gouty matter is by perſpiration, this ought to be kept up by all means, eſpecially in the affected part. For this purpoſe, the leg and foot ſhould be wrapt in flannel, fur, or wool. The laſt ſeems to anſwer the purpoſe better than any thing elſe. The people of Lancaſhire look upon wool as a kind of ſpecific in the gout. They wrap a great quantity of it about the leg and foot affected, and cover it with a ſkin of ſoft dreſſed leather. This they ſuffer to continue for eight or ten days, and ſometimes for a fortnight or three weeks, or longer, if the pain does not ceaſe. I never knew any external application anſwer ſo well in the gout. I have often ſeen it applied when the ſwelling and inflammation were very great, with violent pain, and have found all theſe ſymptoms relieved by it in a few days. The wool is generally greaſed, and carded or combed. They chooſe the ſofteſt which can be had, and ſeldom or never remove it till the fit be entirely gone off.

The patient ought to be kept quiet and eaſy during the fit. Every thing that affects the mind diſturbs the paroxyſm, and tends to throw the gout upon the nobler parts. All external applications that repel the matter are to be avoided as death. They do not cure the diſeaſe, but remove it from a ſafer to a more dangerous part of the body, where it often proves fatal. A fit of the gout is Nature's method of removing ſomething that might prove diſtructive to the body, and all that we can do, with ſafety, is to promote her intentions, and aſſiſt her in expelling the enemy in her own way. Evacuations by bleeding, ſtool, &c. are likewiſe to be uſed with caution; they do not remove the cauſe of the diſeaſe, and ſometimes by weakening the patient, prolong the fit: but, where the conſtitution is able to bear it, it will be of uſe to keep the body gently open by diet, or even mild laxative medicines.

Many things will indeed ſhorten a fit of the gout, and ſome will drive it off altogether; but nothing has yet been found which will do this with ſafety to the patient. In pain, we eagerly graſp at any thing that promiſes immediate eaſe, and even hazard life itſelf for a temporary relief. This is the true reaſon why ſo many infallible remedies have been propoſed for the gout, and why ſuch numbers have loſt their lives by the uſe of them. It would be as prudent to ſtop the ſmall-pox from riſing, and to drive them into the blood, as to attempt to repel the gouty matter after it has been thrown upon the extremities. The latter is as much an effort of Nature to free herſelf from an offending cauſe as the former, and ought equally to be promoted.

When the pain is very great, and the patient reſtleſs, thirty or

forty drops of laudanum, more or leſs, according to the violence of the ſymptoms, may be taken at bed-time. This will eaſe the pain, procure reſt, promote perſpiration, and forward the criſes of the diſeaſe.

After the fit is over, the patient ought to take a gentle doſe or two of the bitter tincture of rhubarb, or ſome other warm ſtomachic purge. He ſhould alſo drink a weak infuſion of ſtomachic bitters in ſmall wine or ale, as the bark with cinnamon, Virginian ſnake-root, and orange-peel. The diet at this time ſhould be light, but nouriſhing, and gentle exerciſe ought to be taken on horſeback, or in a carriage.

Out of the fit, it is in the patient's power to do many things towards preventing a return of the diſorder, or rendering the fit, if it ſhould return, leſs ſevere. This, however, is not to be attempted by medicine. I have frequently known the gout kept off for ſeveral years by the bark and other aſtringent medicines; but, in all the caſes, where I had occaſion to ſee this tried, the perſons died ſuddenly, and, to all appearance, for want of a regular fit of the gout, which, to ſome conſtitutions, in the decline of life, is rather ſalutary than hurtful.

Though it may be dangerous to ſtop a fit of the gout by medicine, yet if the conſtitution can be ſo changed by diet and exerciſe, as to leſſen or totally prevent its return, there certainly can be no danger in following ſuch a courſe. The whole habit may be altered by a proper regimen, as quite to eradicate this diſeaſe; and thoſe only who have ſufficient reſolution to perſiſt in ſuch a courſe, have reaſon to expect a cure.

The courſe which we would recommend for preventing the gout, is as follows: In the firſt place, *univerſal temperance*. In the next place, *ſufficient exerciſe**. By this we do not mean fauntering about in an indolent manner, but labour, ſweat, and toil. Theſe only can render the humours wholeſome, and keep them ſo. Going early to bed, and riſing betimes, are alſo of great importance. It is likewiſe proper to avoid night-ſtudies, and all intenſe thought. The ſupper ſhould be light, and taken early. All ſtrong liquors, eſpecially generous wines and ſour punch, are to be avoided.

We would likewiſe recommend ſome doſes of *magneſia alba* and rhubarb to be taken every ſpring and autumn; and afterwards a courſe of ſtomachic bitters, as tanſey or water-trefoil tea, an infuſion of gentian and camomile flowers, or a decoction of burdock root, &c. Any of theſe, or an infuſion of any wholeſome bitter that is more agreeable to the patient, may be drank for two or three weeks in March and October twice a-day. An iſſue or perpetual bliſter has a great tendency to prevent the gout. If theſe

* Some make a ſecret of curing the gout by *muſcular exerciſe*. This ſecret, however, is as old as Celſus, who ſtrongly recommends that mode of cure; and whoever will ſubmit to it, in the fulleſt extent, may expect to reap ſolid and permanent advantages.

were more generally uſed in the decline of life, they would not only often prevent the gout, but alſo other chronic maladies. Such as can afford to go to Bath, will find great benefit from bathing and drinking the water. It both promotes digeſtion, and invigorates the habit.

Though there is little room for medicine during a regular fit of the gout, yet when it leaves the extremities, and falls on ſome of the internal parts, proper applications to recal and fix it become abſolutely neceſſary. When the gout affects the head, the pain of the joints ceaſes, and the ſwelling diſappears, while either ſevere head-ach, drowſineſs, trembling, giddineſs, convulſions, or delirium come on. When it ſeizes the lungs, great oppreſſion, with cough and difficulty of breathing, enſue. If it attacks the ſtomach, extreme ſickneſs, vomiting, anxiety, pain in the epigaſtric region, and total loſs of ſtrength will ſucceed.

When the gout attacks the head or lungs, every method muſt be taken to fix it in the feet. They muſt be frequently bathed in warm water, and acrid cataplaſms applied to the ſoles. Bliſters ought likewiſe to be applied to the ancles or calves of the legs. Bleeding in the feet or ancles is alſo neceſſary, and warm ſtomachic purges. The patient ought to keep in bed for the moſt part, if there be any ſigns of inflammation, and ſhould be very careful not to catch cold.

If it attacks the ſtomach with a ſenſe of cold, the moſt warm cordials are neceſſary; as ſtrong wine boiled up with cinnamon or other ſpices; cinnamon water; peppermint-water; and even brandy or rum. The patient ſhould keep his bed, and endeavour to promote a ſweat by drinking warm liquors; and if he ſhould be troubled with a nauſea, or inclination to vomit, he may drink camomile tea, or any thing that will make him vomit freely.

When the gout attacks the kidneys, and imitates gravel-pains, the patient ought to drink freely of a decoction of marſh-mallows, and to have the parts fomented with warm water. An emollient clyſter ought likewiſe to be given, and afterwards an opiate. If the pain be very violent, twenty or thirty drops of laudanum may be taken in a cup of the decoction.

Perſons who have had the gout ſhould be very attentive to any complaints that may happen to them about the time when they have reaſon to expect a return of the fit. The gout imitates many other diſorders, and by being miſtaken for them, and treated improperly, is often diverted from its regular courſe, to the great danger of life.

Thoſe who never had the gout, but who, from their conſtitution or manner of living, have reaſon to expect it, ought to be very circumſpect with regard to its firſt approach. If the diſeaſe, by wrong conduct or improper medicines, be diverted from its proper courſe, the patient has a chance to be ever after tormented

with head-achs, coughs, pains of the ſtomach and inteſtines; and to fall at laſt a victim to its attack upon ſome of the more noble parts.

## *Of the Rheumatiſm.*

THIS diſeaſe has often a reſemblance to the gout. It generally attacks the joints with exquiſite pain, and is ſometimes attended with inflammation and ſwelling. It is moſt common in the ſpring, and towards the end of autumn. It is uſually diſtinguiſhed into acute and chronic; or the rheumatiſm with and without a fever.

CAUSES.——The cauſes of a rheumatiſm are frequently the ſame as thoſe of an inflammatory fever, viz. an obſtructed perſpiration, the immoderate uſe of ſtrong liquors, and the like. Sudden changes of the weather, and all quick tranſitions from heat to cold, are very apt to occaſion the rheumatiſm. The moſt extraordinary caſe of a rheumatiſm that I ever ſaw, where almoſt every joint of the body was diſtorted, was a man who uſed to work one part of the day by the fire, and the other part of it in the water. Very obſtinate rheumatiſms have likewiſe been brought on by perſons not accuſtomed to it, allowing their feet to continue long wet. The ſame effects are produced by wet clothes, damp beds, ſitting or lying on the damp ground, travelling in the night, by exceſſive evacuations, or the ſtoppage of cuſtomary diſcharges. It is often the effect of chronic diſeaſes, as the ſcurvy, the *lues venerea*, obſtinate autumnal agues, &c.

The rheumatiſm prevails in cold, damp, marſhy countries. It is moſt common among the poorer ſort of peaſants, who are ill clothed, live in low damp houſes, and eat coarſe unwholeſome food, which contains but little nouriſhment, and is not eaſily digeſted.

SYMPTOMS.——The acute rheumatiſm commonly begins with wearineſs, ſhivering, a quick pulſe, reſtleſſneſs, thirſt, and other ſymptoms of fever. Afterwards the patient complains of flying pains, which increaſe by the leaſt motion. Theſe at length fix in the joints, which are often affected with ſwelling and inflammation. If blood be let in this diſeaſe, it has generally the ſame appearance as in the pleuriſy.

In this kind of rheumatiſm, the treatment of the patient is nearly the ſame as in an acute or inflammatory fever. If he be young and ſtrong, bleeding is neceſſary, which may be repeated according to the exigencies of the caſe. The body ought to be kept open by emollient clyſters, or cool opening liquors; as decoctions of tamarinds, cream of tartar whey, ſenna tea, and the like. The diet ſhould be light, and in ſmall quantity, conſiſting chiefly of

roaſted apples, groat-gruel, or weak chicken broth. After the feveriſh ſymptoms have abated, if the pain ſtill continues, the patient muſt keep his bed, and take ſuch things as promote perſpiration; as wine-whey, with *ſpiritus Mindereri*, &c. He may likewiſe take, for a few nights, at bed-time, in a cup of wine-whey, a drachm of the cream of tartar, and half a drachm of gum guaiacum in powder.

Warm bathing, after proper evacuations, has often an exceeding good effect. The patient may either be put into a bath of warm water, or have cloths wrung out of it applied to the parts affected. Great care muſt be taken that he do not catch cold after bathing.

The chronic rheumatiſm is ſeldom attended with any conſiderable degree of fever, and is generally confined to ſome particular part of the body, as the ſhoulders, the back, or the loins. There is ſeldom any inflammation or ſwelling in this caſe. Perſons in the decline of life are moſt ſubject to the chronic rheumatiſm. In ſuch patients, it often proves extremely obſtinate, and ſometimes incurable.

In this kind of rheumatiſm the regimen ſhould be nearly the ſame as in the acute. Cool and diluting diet, as ſtewed prunes, coddled apples, currants or gooſeberries boiled in milk, is moſt proper. Arbuthnot ſays, "If there be a ſpecific in aliment for the rheumatiſm, it is certainly whey;" and adds, "that he knew a perſon ſubject to this diſeaſe, who could never be cured by any other method but a diet of whey and bread." He ſays, "that cream of tartar in water-gruel, taken for ſeveral days, will eaſe rheumatic pains conſiderably." This I have often experienced, but found it always more efficacious when joined with gum guaiacum, as already directed. In this caſe, the patient may take the doſe formerly mentioned twice-a-day, and likewiſe a tea-ſpoonful of the volatile tincture of gum guaiacum, at bed time, in wine-whey.

This courſe may be continued for a week, or longer, if the caſe proves obſtinate, and the patient's ſtrength will permit. It ought then to be omitted for a few days, and repeated again. At the ſame time leeches or a bliſter may be applied to the part affected. What I have generally found anſwer better than either of theſe, in obſtinate fixed rheumatic pains, is the *warm plaiſter* *. I have likewiſe known a plaiſter of Burgundy pitch worn for ſome time on the part affected, give great relief in rheumatic pains. Dr. Alexander, of Edinburgh, ſays he has frequently cured very obſtinate rheumatic pains, by rubbing the part affected with tincture of cantharides. When the common tincture did not ſucceed, he uſed it of a double or treble ſtrength. Cupping upon the part affected

* See appendix, Warm Plaiſter.

is often very beneficial, and is greatly preferable to the application of leeches.

Though this diſeaſe may not ſeem to yield to medicines for ſome time, yet they ought ſtill to be perſiſted in. Perſons ſubject to frequent returns of rheumatiſm, will often find their account in uſing medicines, whether they be immediately affected with the diſeaſe or not. The chronic rheumatiſm is ſimilar to the gout in this reſpect, that the moſt proper time for uſing medicines to extirpate it, is when the patient is moſt free from the diſorder.

To thoſe who can afford the expenſe, I recommend the warm baths of Buxton or Matlock in Derbyſhire. Theſe have often, to my knowledge, cured very obſtinate rheumatiſms, and are always ſafe either in or out of the fit. When the rheumatiſm is complicated with ſcorbutic complaints, which is not ſeldom the caſe, the Harrowgate waters, and thoſe of Moffat, are proper. They ſhould both be drank and uſed as a warm bath.

Several of our own domeſtic plants may be uſed with advantage in the rheumatiſm. One of the beſt is white *muſtard*. A tableſpoonful of the ſeed of this plant may be taken twice or thrice a-day, in a glaſs of water or ſmall wine. The water-treſoil is likewiſe of great uſe in this complaint. It may be infuſed in wine or ale, or drank in form of tea. The ground-ivy, camomile, and ſeveral other bitters are beneficial, and may be uſed in the ſame way. No benefit is to be expected from theſe, unleſs they be taken for a conſiderable time. Excellent medicines are often deſpiſed in this diſeaſe, becauſe they do not perform an immediate cure; whereas, nothing would be more certain than their effect, were they duly perſiſted in. Want of perſeverance in the uſe of medicines is one reaſon why chronic diſeaſes are ſo ſeldom cured.

Cold bathing, eſpecially in ſalt water, often cures the rheumatiſm. We alſo recommend riding on horſeback, and wearing flannel next the ſkin. Iſſues are very proper, eſpecially in chronic caſes. If the pain affects the ſhoulders, an iſſue may be made in the arm; but if it affects the loins, it ſhould be put in the leg or thigh.

Perſons afflicted with the ſcurvy are very ſubject to rheumatic complaints. The beſt medicines in this caſe are bitters and mild purgatives. Theſe may either be taken ſeparately or together, as the patient inclines. An ounce of bark, and half an ounce of rhubarb in powder, may be infuſed in a bottle of wine; and one, two, or three wine glaſſes of it taken daily, as ſhall be found neceſſary for keeping the body gently open. In caſes where the bark itſelf proves ſufficiently purgative, the rheubarb may be omitted.

Such as are ſubject to frequent attacks of the rheumatiſm ought to make choiſe of a dry, warm ſituation, to avoid the night-air, wet clothes, and wet feet, as much as poſſible. Their clothing ſhould be warm; they ſhould wear flannel next their ſkin, and make frequent uſe of the fleſh-bruſh.

# CHAPTER XLI.

## *The Scurvy*

PREVAILS chiefly in cold northern countries, especially in low, damp situations, near large marshes, or great quantities of stagnating water. Sedentary people, of a dull, melancholy disposition, are most subject to it. It proves often fatal to sailors on long voyages, particularly in ships that are not properly ventilated, have many people on board, or where cleanliness is neglected.

It is not necessary to mention the different species into which this disease has been divided, as they differ from one another chiefly in degree. What is called the *land scurvy*, however, is seldom attended with those highly putrid symptoms which appear in patients who have been long at sea, and which, we presume, are rather owing to confined air, want of exercise, scarcity of water, and the unwholesome food eaten by sailors on long voyages, than to any specific difference in the disease.

CAUSES.——The scurvy is occasioned by cold, moist air; by the long use of salted or smoke-dried provisions, or any kind of food that is hard of digestion, and affords little norishment. It may also proceed from the suppression of customary evacuations; as the *menses*, the hæmorrhoidal flux, &c. It is sometimes owing to a hereditary taint, in which case, a very small cause will excite the latent disorder. Grief, fear, and other depressing passions, have a great tendency both to excite and aggravate this disease. The same observation holds with regard to neglect of cleanliness; badclothing; the want of proper exercise; confined air; unwholesome food; or any disease which greatly weakens the body.

SYMPTOMS.——This disease may be known by unusual weariness, heaviness, and difficulty of breathing, especially after motion; rottenness of the gums, which are apt to bleed on the slightest touch; a stinking breath; frequent bleeding at the nose; crackling of the joints; difficulty of walking; sometimes a swelling, and sometimes a falling away of the legs, on which there are livid, yellow, or violet-coloured spots; the face is generally of a pale or leaden colour. As the disease advances, other symptoms come on; as rottenness of the teeth, hæmorrhages, or discharges of blood from different parts of the body, foul obstinate ulcers, pains in various parts, especially about the breast, dry, scaly eruptions all over the body, &c. At last, a wasting or hectic fever comes on, and the patient is often carried off by a dysentery, a diarrhœa, a dropsy, the palsy, fainting fits, or a mortification of some of the bowels.

CURE.——We know no way of curing this disease but by

purſuing a plan directly oppoſite to that which brings it on. It is occaſioned by errors in diet, air, or exerciſe; and this cannot be removed but by a proper attention to theſe important articles.

If the patient has been obliged to breathe a cold, damp, or confined air, he ſhould be removed, as ſoon as poſſible, to a dry, open, and moderately warm one. If there is reaſon to believe that the diſeaſe proceeds from a ſedentary life, or depreſſing paſſions, as grief, fear, &c. he muſt take, daily, as much exerciſe in the open air as he can bear, and his mind ſhould be diverted by cheerful company and other amuſements. Nothing has a greater tendency either to prevent or remove this diſeaſe, than conſtant cheerfulneſs and good humour. But perſons afflicted with the ſcurvy, are generally ſurly, peeviſh, and moroſe.

When the ſcurvy comes on by a long uſe of ſalted proviſions, the proper medicine is a diet conſiſting chiefly of freſh vegetables; as oranges, apples, lemons, limes, tamarinds, water-criſſes, ſcurvy-graſs, brook-lime, &c. The uſe of theſe, with milk, pot-herbs, new-bread, and freſh beer or cyder, will ſeldom fail to remove a ſcurvy of this kind, if taken before it be too far advanced; but to have this effect they muſt be perſiſted in for a conſiderable time. When freſh vegetables cannot be obtained, pickled or preſerved ones may be uſed; and where theſe are wanting, recourſe muſt be had to the chemical acids. All the patient's food and drink, ſhould, in this caſe, be ſharpened with cream of tartar, elixir of vitriol, vinegar, or the ſpirit of ſea-ſalt.

Theſe things, however, will more certainly prevent than cure the ſcurvy; for which reaſon, ſea-faring people, eſpecially on long voyages, ought to lay in plenty of them. Cabbages, onions, gooſeberries, and many other vegetables, may be kept a long time by *pickling*, *preſerving*, &c. and when theſe fail, the chemical acids, recommended above, which will keep for any length of time, may be uſed. We have reaſon to believe, if ſhips were well ventilated, had good ſtore of fruits, greens, cyder, &c. laid in, and if proper regard were paid to cleanlineſs and warmth, that ſailors would be the moſt healthy people in the world, and would ſeldom ſuffer either from the ſcurvy or malignant fevers, which are ſo fatal to that uſeful ſet of men; but it is too much their temper to deſpiſe all precaution; they will not think of any calamity till it overtakes them, when it is too late to ward off the blow.

It muſt indeed be owned, that many of them have it not in their power to make the proviſion we are ſpeaking of; but in this caſe it is the duty of their employers to make it for them; and no man ought to engage in a long voyage without having theſe articles ſecured.

I have often ſeen very extraordinary effects in the land-ſcurvy from a milk diet. This preparation of nature, a mixture of animal and vegetable properties, is the moſt fit for reſtoring a decayed conſtitution. But people deſpiſe this wholeſome and nouriſhing

food, becauſe it is cheap, and devour with greedineſs, fleſh, and fermented liquors, while milk is only deemed fit for hogs.

The moſt proper drink in the ſcurvy is whey or butter-milk. When theſe cannot be had, ſound cyder, perry, porter or ſpruce-beer, may be uſed. Wort has been found a proper drink in the ſcurvy, and may be uſed at ſea, as malt will keep during the longeſt voyage. A decoction of the tops of the ſpruce fir is likewiſe proper. It may be drank in the quantity of an Engliſh pint twice a-day. Tar-water may be uſed for the ſame purpoſe, or decoctions of any of the mild mucilaginous vegetables; as ſarſaparilla, marſh-mallow roots, &c. Infuſions of the bitter plants, as ground-ivy, the leſſer centaury, marſh-trefoil, &c. are beneficial. The peaſants in ſome parts of Britain, expreſs the juice of the laſt-mentioned plant, and drink it with good effect in thoſe foul, ſcorbutic eruptions with which they are often troubled in the ſpring ſeaſon.

Harrowgate-water is certainly an excellent medicine in the land-ſcurvy. I have often ſeen patients who had been reduced to the moſt deplorable condition by this diſeaſe, greatly relieved by drinking the ſulphur-water, and bathing in it. The chalybeate-water may alſo be uſed with advantage, eſpecially with a view to brace the ſtomach after drinking the ſulphur-water, which, though it ſharpens the appetite, never fails to weaken the powers of digeſtion.

A ſlight degree of ſcurvy may be carried off by frequently ſucking a little of the juice of a bitter orange, or a lemon. When the diſeaſe affects the gums only, this practice, if continued for ſome time, will generally carry it off. We recommend the bitter orange as greatly preferable to lemon; it ſeems to be as good a medicine, and is not near ſo hurtful to the ſtomach. Perhaps our own ſorrel may be little inferior to either of them.

All kinds of ſallad are good in the ſcurvy, and ought to be eaten very plentifully, as ſpinage, lettuce, parſley, celery, endive, radiſh, dandelion, &c. It is amazing to ſee how ſoon freſh vegetables in the ſpring cure the brute animals of any ſcab or foulneſs which is upon their ſkins. It is reaſonable to ſuppoſe that their effects would be as great upon the human ſpecies, were they uſed in proper quantity for a ſufficient length of time.

I have ſometimes ſeen good effects in ſcorbutic complaints of very long ſtanding, from the uſe of a decoction of the roots of water-dock. It is uſually made by boiling a pound of the freſh root in ſix Engliſh pints of water, till about one-third of it be conſumed. The doſe is from half a pint to a whole pint of the decoction every day. But in all the caſes where I have ſeen it prove beneficial, it was made much ſtronger, and drank in larger quantities. The ſafeſt way is, for the patient to begin with ſmall doſes, and increaſe them both in ſtrength and quantity as he finds his ſtomach will bear it. It muſt be uſed for a conſiderable time. I have known ſome take it for many months, and have been told of others

who had uſed it for ſeveral years, before they were ſenſible of any benefit, but who nevertheleſs were cured by it at length.

The leproſy, which was ſo common in this country long ago, ſeems to have been near a-kin to the ſcurvy. Perhaps its appearing ſo ſeldom now, may be owing to the inhabitants of Britain eating more vegetable food than formerly, living more upon tea, and other diluting diet, uſing leſs ſalted meat, being more cleanly, better lodged and clothed, &c.—For the cure of this diſeaſe, we recommend the ſame courſe of diet and medicine as in the ſcurvy.

## *The Scrophula, or King's Evil*

CHIEFLY affects the glands, eſpecially thoſe of the neck. Children, and young perſons of a ſedentary life, are very ſubject to it. It is one of thoſe diſeaſes which may be removed by proper regimen, but ſeldom yields to medicine. The inhabitants of cold, damp, marſhy countries are moſt liable to the ſcrophula.

CAUSES.——This diſeaſe may proceed from a hereditary taint, from a ſcrophulous nurſe, &c. Children who have the misfortune to be born of ſickly parents, whoſe conſtitutions have been greatly injured by the pox, or other chronic diſeaſes, are apt to be affected with it. It may proceed from ſuch diſeaſes as weaken the habit, as the ſmall-pox, meaſles, &c. External injuries, as blows, bruiſes, and the like, ſometimes produce ſcrophulous ulcers; but we believe, when this happens, that there has been a predispoſition in the habit to this diſeaſe. In ſhort, whatever tends to relax the ſolids, paves the way to the ſcrophula; as the want of proper exerciſe, too much heat or cold, confined air, unwholeſome food, bad water, the long uſe of poor, weak, watery aliments, the neglect of cleanlineſs, &c. Nothing tends more to induce this diſeaſe in children, than allowing them to continue long wet*.

SYMPTOMS.——At firſt, ſmall knots appear under the chin or behind the ears, which gradually increaſe in number and ſize, till they form one large hard tumour. This often continues for a long time without breaking, and when it does break, it only diſcharges a thin *ſanies*, or watery humour. Other parts of the body are likewiſe liable to its attack, as the arm-pits, groins, feet, hands, eyes, breaſts, &c. Nor are the internal parts exempt from it. It often affects the lungs, liver, or ſpleen; and frequently the glands of the myſentery are greatly enlarged by it.

Thoſe obſtinate ulcers which break out upon the feet and hands with ſwelling, and little or no redneſs, are of the ſcrophulous kind. They ſeldom diſcharge good matter, and are exceedingly difficult

* The ſcrophula, as well as the rickets, prevails in large manufacturing towns, where people live groſs, and lead ſedentary lives.

to cure. The *white ſwelling* of the joints ſeems to be of this kind. They are with difficulty brought to a ſuppuration, and when opened, they only diſcharge a thin ichor. There is not a more general ſymptom of the ſcrophula than a ſwelling of the upper lip and noſe.

REGIMEN.——As this diſeaſe proceeds, in a great meaſure, from relaxation, the diet ought to be generous and nouriſhing, but at the ſame time, light and of eaſy digeſtion; as well fermented bread, made of ſound grain, the fleſh and broth of young animals, with a glaſs of generous wine, or good ale. The air ought to be open, dry, and not too cold, and the patient ſhould take as much exerciſe as he can bear. This is of the utmoſt importance. Children who have ſufficient exerciſe are ſeldom troubled with the ſcrophula.

MEDICINE.——The vulgar are remarkably credulous with regard to the cure of the ſcrophula; many of them believing in the virtue of the royal touch, that of the ſeventh ſon, &c. We know but little of the nature or cure of this diſeaſe, and where reaſon or medicines fail, ſuperſtition always comes in their place. Hence, in diſeaſes which are the moſt difficult to underſtand, we generally hear of the greateſt number of miraculous cures being performed. Here, however, the deception is eaſily accounted for. The ſcrophula, at a certain period of life, often cures of itſelf; and, if the patient happens to be touched about this time, the cure is imputed to the touch, and not to Nature. In the ſame way, the inſignificant noſtrums of quacks and old women often gain applauſe when they deſerve none.

Nothing is more pernicious than the cuſtom of plying children in the ſcrophula with ſtrong purgative medicines. People imagine it proceeds from humours which muſt be purged off, without conſidering that theſe purgatives increaſe the debility and aggravate the diſeaſe. It has indeed been found, that keeping the body gently open for ſome time, eſpecially with ſea-water, has a good effect; but this ſhould only be given in groſs habits, and in ſuch quantity, as to procure one, or at moſt, two ſtools every day.

Bathing in the ſalt water has likewiſe a very good effect; eſpecially in the warm ſeaſon. I have often known a courſe of bathing in ſalt water, and drinking it in ſuch quantities as to keep the body gently open, cure a ſcrophula, after many other medicines had been tried in vain. When ſalt water cannot be obtained, the patient may be bathed in freſh water, and his body kept open by ſmall quantities of ſalt and water, or ſome other mild purgative.

Next to cold bathing, and drinking the ſalt water, we recommend the bark. The cold bath may be uſed in ſummer, and the bark in winter. To an adult, half a drachm of the bark in powder may be given in a glaſs of red wine four or five times a-day. Children, and ſuch as cannot take it in ſubſtance, may uſe the decoction made in the following manner.

Boil an ounce of Peruvian bark and a drachm of Winter's bark, both groſsly powdered, in an Engliſh quart of water to a pint: towards the end, half an ounce of ſliced liquorice-root, and a handful of raiſins may be added, which will both render the decoction leſs diſagreeable, and make it take up more of the bark. The liquor muſt be ſtrained, and two, three, or four table-ſpoonfuls, according to the age of the patient, given three times a-day.

The Moffat and Harrowgate waters, eſpecially the latter, are likewiſe very proper medicines in the ſcrophula. They ought not to be drank in large quantities, but ſo as to keep the body gently open, and muſt be uſed for a conſiderable time.

Hemlock may ſometimes be uſed with advantage in the ſcrophula. Some lay it down as a general rule, that the ſea-water is moſt proper before there are any ſuppuration or ſymptoms of *tabes*; the Peruvian bark, when there are running ſores, and a degree of hectic fever; and the hemlock in old inveterate caſes, approaching to the ſchirrous or cancerous ſtate. Either the extract or the freſh juice of this plant may be uſed. The doſe muſt be ſmall at firſt, and increaſed gradually as far as the ſtomach can bear it.

External applications are of little uſe. Before the tumour breaks, nothing ought to be applied to it, unleſs a piece of flannel or ſomething to keep it warm. After it breaks, the ſore may be dreſſed with ſome digeſtive ointment. As the yellow baſilicon mixed with about a ſixth or eighth part of its weight of red precipitate of mercury. The ſore may be dreſſed with this twice a-day; and if it be very fungous, and does not digeſt well, a larger proportion of the precipitate may be added.

Medicines which mitigate this diſeaſe, though they do not cure it, are not to be deſpiſed. If the patient can be kept alive by any means till he arrives at the age of puberty, he has a great chance to get well; but if he does not recover at this time, in all probability, he never will.

There is no malady which parents are ſo apt to communicate to their offſpring as the ſcrophula, for which reaſon, people ought to beware of marrying into families affected with this diſeaſe.

For the means of preventing the ſcrophula, we muſt refer the reader to the obſervations on nurſing at the beginning of the book.

## *The Itch*

IS commonly communicated by infection, yet it ſeldom prevails where due regard is paid to cleanlineſs, freſh air, and wholeſome diet. It generally appears in form of ſmall watery puſtules, firſt about the wriſts, or between the fingers; afterwards

it affects the arms, legs, thighs, &c. These pustules are attended with an intolerable itching, especially when the patient is warm a-bed, or sits by the fire. Sometimes, indeed, the skin is covered with large blotches or scabs, and at other times with a white scurf, or scaly eruption. This last is called the dry itch, and is the most difficult to cure.

The itch is seldom a dangerous disease, unless when rendered so by neglect, or improper treatment. If suffered to continue too long, it may vitiate the whole mass of blood, and, if suddenly drove in, without proper evacuations, it may occasion fevers, inflammations of the viscera, or other internal disorders.

The best medicine for the itch is sulphur, used both externally and internally. The parts most affected may be rubbed with an ointment made of the flowers of sulphur, two ounces; crude sal ammoniac finely powdered, two drachms; hog's lard, or butter, four ounces. If a scruple or half a drachm of the essence of lemon be added, it will entirely take away the disagreeable smell. About the bulk of a nutmeg of this may be rubbed upon the extremities at bed time twice or thrice a-week. It is seldom necessary to rub the whole body; but when it is, it ought not to be done all at once, but by turns, as it is dangerous to stop too many pores at the same time.

Before the patient begins to use the ointment, he ought, if he be of a full habit, to bleed or take a purge or two. It will likewise be proper, during the use of it, to take every night and morning as much of the flour of brimstone and cream of tartar, in a little treacle or new milk, as will keep the body gently open. He should beware of catching cold, should wear more clothes than usual, and take every thing warm. The same clothes, the linen excepted, ought to be worn all the time of using the ointment; and such clothes as have been worn while the patient was under the disease, are not to be used again, unless they have been fumigated with brimstone, and thoroughly cleaned; otherwise, they will communicate the infection anew.

I never knew brimstone, when used as directed above, fail to cure the itch; and I believe that if duly persisted in, it never will fail; but if it be only used once or twice, and cleanliness neglected, it is no wonder if the disorder returns. The quantity of ointment, mentioned above, will generally be sufficient for the cure of one person; but if any symptoms of the disease should appear again, the medicine may be repeated. It is both more safe and effi-

* Sir John Pringle observes, that though this disease may seem trifling, there is no one in the army that is more troublesome to cure, as the infection often lurks in clothes, &c. and breaks out a second or even a third time. The same inconvenience occurs in private families, unless particular regard is paid to the changing or cleansing of their clothes, which last is by no means an easy operation.

cacious when perſiſted in for a conſiderable time, than when a large quantity is applied at once. As moſt people diſlike the ſmell of ſulphur, they may uſe in its place the powder of white hellebore root made up into an ointment, in the ſame manner, which will ſeldom fail to cure the itch.

People ought to be extremely cautious leſt they take other eruptions for the itch; as the ſtoppage of theſe may be attended with fatal conſequences. Many of the eruptive diſorders to which children are liable, have a near reſemblance to this diſeaſe; and I have often known infants killed by being rubbed with greaſy ointments that made theſe eruptions ſtrike ſuddenly in, which Nature had thrown out to preſerve the patient's life, or prevent ſome other malady.

Much miſchief is likewiſe done by the uſe of mercury in this diſeaſe. Some perſons waſh the parts affected with a ſtrong ſolution of the corroſive ſublimate. Others uſe the mercurial ointment, without taking the leaſt care either to avoid cold, keep the body open, or obſerve a proper regimen. The conſequences may be eaſily gueſſed. Mercurial girdles have produced bad effects, and I would advice every perſon, as he values his health, to beware how he uſes them. Mercury ought never to be uſed as a medicine without the greateſt care. Ignorant people look upon theſe girdles as a kind of charm, without conſidering that the mercury enters the body.

It is not to be told what miſchief is done by uſing mercurial ointment for curing the itch and killing vermin; yet it is unneceſſary for either: the former may be always more certainly cured by ſulphur, and the latter will never be found where due regard is paid to cleanlineſs.

Thoſe who wiſh to avoid this deteſtable diſeaſe, ought to beware of infected perſons, to uſe wholeſome food, and to ſtudy univerſal cleanlineſs*.

* The itch is now by cleanlineſs baniſhed from every genteel family in Britain. It ſtill prevails among the poorer ſort of peaſants in Scotland, and among the manufacturers in England. Theſe are not only inſufficient to keep the ſeeds of the diſeaſe alive, but to ſpread the infection among others. It were to be wiſhed, that ſome effectual method could be deviſed for extirpating it altogether. Several country clergymen have told me, that by getting ſuch as were infected cured, and ſtrongly recommending an attention to cleanlineſs, they have baniſhed the itch entirely out of their pariſhes. Why might not others do the ſame?

## CHAPTER XLII.

### *The Aſthma*

IS a diſeaſe of the lungs, which ſeldom admits of a cure. Perſons in the decline of life are moſt liable to it. It is diſtinguiſhed into the moiſt and dry, or humoural and nervous. The former is attended with expectoration or ſpitting; but in the latter, the patient ſeldom ſpits, unleſs ſometimes a little tough phlegm by the mere force of coughing.

CAUSES.——The aſthma is ſometimes hereditary. It may likewiſe proceed from a bad formation of the breaſt; the fumes of metals or minerals taken into the lungs; violent exerciſe, eſpecially running; the obſtruction of cuſtomary evacuations, as the menſes, hæmorrhoids, &c. the ſudden retroceſſion of the gout, or ſtriking in of eruptions, as the ſmall-pox, meaſles, &c. violent paſſions of the mind, as ſudden fear or ſurpriſe. In a word, the diſeaſe may proceed from any cauſe that either impedes the circulation of the blood through the lungs, or prevents their being duly expanded by the air.

SYMPTOMS.——An aſthma is known by a quick laborious breathing, which is generally performed with a kind of wheezing noiſe. Sometimes the difficulty of breathing is ſo great, that the patient is obliged to keep in an erect poſture, otherwiſe he is in danger of being ſuffocated. A fit or paroxyſm of the aſthma generally happens after a perſon has been expoſed to cold eaſterly winds, or has been abroad in thick foggy weather, or has got wet, or continued long in a damp place under ground, or has taken ſome food which the ſtomach could not digeſt, as paſtries, toaſted cheeſe, or the like.

The paroxyſm is commonly uſhered in with liſtleſſneſs, want of ſleep, hoarſeneſs, a cough, belching of wind, a ſenſe of heavineſs about the breaſt, and difficulty of breathing. To theſe ſucceed heat, fever, pain of the head, ſickneſs and naufea, great oppreſſion of the breaſt, palpitation of the heart, a weak and ſometimes intermitting pulſe, an involuntary flow of tears, bilious vomitings, &c. All the ſymptoms grow worſe towards night; the patient is eaſier when up than in bed, and is very deſirous of cool air.

REGIMEN.——The food ought to be light and of eaſy digeſtion. Boiled meats are to be preferred to roaſted, and the fleſh of young animals to that of old. All windy food, and whatever is apt to ſwell in the ſtomach, is to be avoided. Light puddings, white broths, and ripe fruits, baked, boiled, or roaſted, are proper. Strong liquors, of all kinds, eſpecially malt liquor, are hurtful. The patient ſhould eat a very light ſupper, or rather none at all,

and ſhould never ſuffer himſelf to be long coſtive. His clothing ſhould be warm, eſpecially in the winter-ſeaſon. As all diſorders of the breaſt are much relieved by keeping the feet warm, and promoting the perſpiration, a flannel ſhirt or waiſtcoat, and thick ſhoes, will be of ſingular ſervice.

But nothing is of ſo great importance in the aſthma as pure and moderately warm air. Aſthmatic people can ſeldom bear either the cloſe heavy air of a large town, or the ſharp, keen atmoſphere of a bleak hilly country; a medium therefore between theſe is to be choſen. The air near a large town is often better than at a diſtance, provided the patient be removed ſo far as not to be affected by the ſmoke. Some aſthmatic patients breathe eaſier in town than in the country; but this is ſeldom the caſe, eſpecially in towns where much coal is burnt. Aſthmatic perſons who are obliged to be in town all day, ought at leaſt to ſleep out of it. This will often prove of great ſervice. Thoſe who can afford it, ought to travel into a warmer climate. Many aſthmatic perſons, who cannot live in Britain, enjoy very good health in the ſouth of France, Portugal, Spain, or Italy.

Exerciſe is of very great importance in the aſthma, as it promotes the digeſtion, preparation of the blood, &c. The blood of aſthmatic perſons is ſeldom duly prepared, owing to the proper action of the lungs being impeded. For this reaſon, ſuch people ought daily to take as much exerciſe, either on foot, horſeback, or in a carriage, as they can bear.

MEDICINE.——Almoſt all that can be done by medicine in this diſeaſe, is to relieve the patient when ſeized with a violent fit. This, indeed, requires the greateſt expedition, as the diſeaſe often proves ſuddenly fatal. In the paroxyſm or fit, the body is generally bound; a purging clyſter, with a ſolution of aſafœtida, ought therefore to be adminiſtered, and if there be occaſion, it may be repeated two or three times. The patient's feet and legs ought to be immerſed in warm water, and afterwards rubbed with a warm hand, or dry cloth. Bleeding, unleſs extreme weakneſs or old age ſhould forbid it, is highly proper. If there be a violent ſpaſm about the breaſt or ſtomach, warm fomentations, or bladders filled with warm milk and water, may be applied to the part affected, and warm cataplaſms to the ſoles of the feet. The patient muſt drink freely of diluting liquors, and may take a teaſpoonful of the tincture of caſtor and of ſaffron mixed together, in a cup of valerian-tea, twice or thrice a-day. Sometimes a vomit has a very good effect, and ſnatches the patient from the jaws of death. This, however, will be more ſafe after other evacuations have been premiſed. A very ſtrong infuſion of roaſted coffee is ſaid to give eaſe in an aſthmatic paroxyſm.

In the moiſt aſthma, ſuch things as promote expectoration or ſpitting ought to be uſed; as the ſyrup of ſquills, gum ammoniac, and ſuch-like. A common ſpoonful of the ſyrup, or oxymel of

ſquills, mixed with an equal quantity of cinnamon-water, may be taken three or four times through the day, and four or five pills, made of equal parts of aſafœtida and gum-ammoniac, at bed time*.

For the convulſive or nervous aſthma, antiſpaſmodics and bracers are the moſt proper medicines. The patient may take a teaſpoonful of the paregoric elixir twice a-day. The bark is ſometimes of uſe in this caſe. It may be taken in ſubſtance, or infuſed in wine†. In ſhort, every thing that braces the nerves, or takes off ſpaſm, may be of uſe in a nervous aſthma. It is often relieved by the uſe of aſſes' milk. I have likewiſe known cow's milk, drank warm in the morning, have a very good effect in this caſe.

In every ſpecies of aſthma, ſetons and iſſues have a good effect. They may either be ſet in the back or ſide, and ſhould never be allowed to dry up. Not only in the aſthma, but in moſt chronic diſeaſes, iſſues are extremely proper. They are a ſafe and efficacious remedy; and though they do not always cure the diſeaſe, yet they will often prolong the patient's life.

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## CHAPTER XLIII.

### *Of the Apoplexy.*

THE apoplexy is a ſudden loſs of ſenſe and motion, wherein the patient is to all appearance dead. The heart and lungs however ſtill continue to move. This diſeaſe proves often fatal; yet it may ſometimes be removed by proper care. It chiefly attacks ſedentary perſons, of a groſs habit, who uſe a rich and plentiful diet, and indulge in ſtrong liquors. People in the decline of life are moſt ſubject to the apoplexy. It prevails moſt in winter, eſpecially in rainy ſeaſons, and very low ſtates of the barometer.

CAUSES.——The immediate cauſe of an apoplexy is a compreſſion of the brain, occaſioned by an exceſs of blood, or a collection of watery humours. The former is called a ſanguine, and the latter, a ſerous apoplexy. It may be occaſioned by any thing that increaſes the circulation towards the brain, or prevents the return

* After copious evacuations, large doſes of æther have been found very efficacious in removing a fit of the aſthma. I have likewiſe known the following mixture produce very happy effects: To four or five ounces of the ſolution of gum-ammoniac, add two ounces of ſimple cinnamon-water, the ſame quantity of balſamic ſyrup, and half an ounce of the paregoric elixir. Of this, two table-ſpoonfuls may be taken every three hours.

† When a paroxyſm or fit of aſthma has gone off, cold bathing may be employed, to co-operate with the tonic medicines recommended, to prevent a return of the paroxyſm. (I. C.)

of the blood from the head; as intenſe ſtudy; violent paſſions*; viewing objects for a long time obliquely; wearing any thing too tight about the neck; a rich and luxurious diet; ſuppreſſion of urine; ſuffering the body to cool ſuddenly after having been greatly heated; continuing long in a warm or a cold bath; the exceſſive uſe of ſpiceries, or high-ſeaſoned food; exceſs of venery; the ſudden ſtriking in of any eruption; ſuffering iſſues, ſetons, &c. ſuddenly to dry up, or the ſtoppage of any cuſtomary evacuation; a mercurial ſalivation puſhed too far, or ſuddenly checked by cold; wounds or bruiſes on the head; long expoſure to exceſſive cold; poiſonous exhalations, &c.

SYMPTOMS, and method of cure.——The uſual forerunners of an apoplexy are giddineſs, pain and ſwimming of the head; loſs of memory; drowſineſs; noiſe in the ears; the night-mare; a ſpontaneous flux of tears, and laborious reſpiration. When perſons of an apoplectic make obſerve theſe ſymptoms, they have reaſon to fear the approach of a fit, and ſhould endeavour to prevent it by bleeding, a ſlender diet and opening medicines.

In the ſanguine apoplexy, if the patient does not die ſuddenly, the countenance appears florid, the face is ſwelled or puffed up, and the blood-veſſels, eſpecially about the neck and temples, are turgid; the pulſe beats ſtrong; the eyes are prominent and fixed, and the breathing is difficult, and performed with a ſnorting noiſe. The excrements and urine are often voided ſpontaneouſly, and the patient is ſometimes ſeized with vomiting.

In this ſpecies of apoplexy, every method muſt be taken to leſſen the force of the circulation towards the head. The patient ſhould be kept perfectly eaſy and cool. His head ſhould be raiſed pretty high, and his feet ſuffered to hang down. His clothes ought to be looſened, eſpecially about the neck, and freſh air admitted into his chamber. His garters ſhould be tied pretty tight, by which means the motion of the blood from the lower extremities will be retarded. As ſoon as he is placed in a proper poſture, he ſhould be bled freely in the neck or arm, and, if there be occaſion, the operation may be repeated in two or three hours. A laxative clyſter, with plenty of ſweet oil, or freſh butter, and a ſpoonful or two of common ſalt in it may be adminiſtered every two hours†, and a

* I knew a woman, who, in a violent fit of anger, was ſeized with a ſanguine apoplexy. She at firſt complained of extreme pain, as if dagger had been thruſt through her head, as ſhe expreſſed it. Afterwards ſhe became comatoſe, her pulſe ſunk very low, and was exceeding ſlow. By bleeding, bliſtering, and other evacuations, ſhe was kept alive about a fortnight. When her head was opened, a large quantity of extravaſated blood was found in the left venteicle of the brain.

† A clyſter, conſiſting of three ounces of glauber ſalts diſſolved in a pint of warm water, with an ounce of antimonial wine, and a ſuitable quantity of oil, would have a more powerful effect in relieving the head. (I. C.)

bliſter appplied between the ſhoulders, and to the calves of the legs.

As ſoon as the ſymptoms are a little abated, and the patient is able to ſwallow, he ought to drink freely of ſome diluting opening liquor, as a decoction of tamarinds and liquorice, cream-tartar whey, or common whey with cream of tartar diſſolved in it. Or he may take any cooling purge, as Glauber's ſalts, manna diſſolved in an infuſion of ſenna, or the like. All ſpirits and other ſtrong liquors are to be avoided. Even volatile ſalts held to the noſe do miſchief. Vomits, for the ſame reaſon, ought not to be given, nor any thing that may increaſe the motion of the blood towards the head.

In the ſerous apoplexy, the ſymptoms are nearly the ſame, only the pulſe is not ſo ſtrong, the countenance is leſs florid, and the breathing leſs difficult. Bleeding is not ſo neceſſary here as in the former caſe. It may generally be performed once with ſafety and advantage, but ſhould not be repeated. The patient ſhould be placed in the ſame poſture as directd above, and ſhould have bliſters applied, and receive opening clyſters in the ſame manner. Purges are likewiſe neceſſary, and the patient may drink ſtrong balm-tea. If he be inclined to ſweat, it ought to be promoted by drinking ſmall wine-whey, or an infuſion of carduus benedictus. A plentiful ſweat kept up for a conſiderable time has often carried off a ſerous apoplexy.

When apoplectic ſymptoms proceed from opium, or other narcotic ſubſtances taken into the ſtomach, vomits are neceſſary. The patient is generally relieved as ſoon as he has diſcharged the poiſon in this way.

Perſons of an apoplectic make, or thoſe who have been attacked by an apoplexy, ought to uſe a very ſpare and ſlender diet, avoiding all ſtrong liquors, ſpiceries, and high ſeaſoned food. They ought likewiſe to guard againſt all violent paſſions, and to avoid the extremes of heat and cold. The head ſhould be ſhaved, and daily waſhed with cold water. The feet ought to be kept warm, and never ſuffered to continue long wet. The body muſt be kept open either by food or medicine, and a little blood may be let every ſpring and fall. Exerciſe ſhould by no means be neglected; but it ought to be taken in moderation. Nothing has a more happy effect in preventing an apoplexy than perpetual iſſues or ſetons; great care however muſt be taken not to ſuffer them to dry up, without opening others in their ſtead. Apoplectic perſons ought never to go to reſt with a full ſtomach, or to lie with their heads low, or wear any thing too tight about their necks.

# CHAPTER XLIV.

## *Of Coſtiveneſs, and other Affections of the Stomach and Bowels.*

WE do not here mean to treat of thoſe aſtrictions of the bowels which are the ſymptoms of diſeaſes, as of the cholic, the iliac paſſion, &c. but only to take notice of that infrequency of ſtools which ſometimes happens, and which in ſome particular conſtitutions may occaſion diſeaſes.

Coſtiveneſs may proceed from drinking rough red wines, or other aſtringent liquors; too much exerciſe, eſpecially on horſeback or from a long uſe of cold inſipid food, which does not ſufficiently ſtimulate the inteſtines. Sometimes it is owing to the bile not deſcending to the inteſtines, as in the jaundice; and at other times it proceeds from diſeaſes of the inteſtines themſelves, as a palſy, ſpaſms, torpor, tumours of the inteſtines, &c.

Exceſſive coſtiveneſs is apt to occaſion pains of the head, vomiting, colics, and other complaints of the bowels. It is peculiarly hurtful to hypochondriac and hyſteric perſons, as it generates wind and other grievous ſymptoms. Some people can bear coſtiveneſs to a great degree. I know perſons who enjoy pretty good health, yet do not go to ſtool above once a-week, and others not above once a-fortnight. I have heard of ſome who do not go above once a-month.

Perſons who are generally coſtive ſhould live upon a moiſtening and laxative diet, as roaſted or boiled apples, pears, ſtewed prunes, raiſins, gruels with currants, butter, honey, ſugar, and ſuch-like. Broths with ſpinage, leeks, and other ſoft pot-herbs, are likewiſe proper. Rye-bread, or that which is made of a mixture of wheat and rye together, ought to be eaten. No perſon troubled with coſtiveneſs ſhould eat white bread alone, eſpecially that which is made of fine flour. The beſt bread for keeping the body ſoluble is what in ſome parts of England they call *meſlin*. It is made of a mixture of wheat and rye, and is very agreeable to thoſe accuſtomed to it.

Coſtiveneſs is encreaſed by keeping the body too warm, and by every thing that promotes the perſpiration; as wearing flannel, lying too long a-bed, &c. Intenſe thought and a ſedentary life, are likewiſe hurtful. All the ſecretions and excretions are promoted by moderate exerciſe without doors, and by a gay, cheerful, ſprightly temper of mind.

The drink ſhould be of an opening quality. Ardent ſpirits, auſtere and aſtringent wines, as port, claret, &c. ought to be avoided. Malt-liquor that is fine, and of a moderate ſtrength, is very

proper. Butter-milk, whey, and other watery liquors, are likewiſe proper, and may be drank in turns, as inclination directs.

Thoſe troubled with coſtiveneſs, ought, if poſſible, to remedy it by diet, as the conſtant uſe of medicines for that purpoſe is attended with many inconveniencies, and often with bad conſequences*. I never knew any one get into a habit of taking medicine for keeping the body open, who could leave it off. In time, the cuſtom becomes neceſſary, and generally ends in a total relaxation of the bowels, indigeſtion, loſs of appetite, waſting of the ſtrength, and death.

When the body cannot be kept open without medicine, we recommend gentle doſes of caſtor-oil, flour of ſulphur, and cream of tartar, to be taken twice or thrice a-week. This is not near ſo injurious to the ſtomach as aloes, jalap, or the other draſtic purgatives ſo much in uſe. Infuſions of ſenna and manna may likewiſe be taken, or half an ounce of ſoluble tartar diſſolved in water-gruel. About the ſize of a nutmeg of lenitive electuary taken twice or thrice a-day generally anſwers the purpoſe very well.

## *Want of Appetite.*

THIS may proceed from a foul ſtomach; indigeſtion; the want of free air and exerciſe; grief; fear; anxiety; or any of the depreſſing paſſions; exceſſive heat; the uſe of ſtrong broths, fat meats, or any thing that palls the appetite, or is hard of digeſtion; the immoderate uſe of ſtrong liquors, tea, tobacco, opium, &c.

The patient ought, if impoſſible, to make choice of an open dry air; to take exerciſe daily on horſeback or in a carriage; to riſe

* Dr. Arbuthnot adviſes thoſe who are troubled with coſtiveneſs to uſe animal oils, as freſh butter, cream, marrow, fat broths, eſpecially thoſe made of internal parts of animals, as the liver, heart, midriff, &c. the expreſſed oils of mild vegetables, as olives, almonds, paſtaches, and the fruits themſelves; all oily and mild fruits, as figs; decoctions of mealy vegetables; theſe lubricate the inteſtines; ſome ſaponaceous ſubſtances which ſtimulate gently, as honey, hydromel, or boiled honey and water, unrefined ſugar, &c.

He obſerves, that ſuch lenitive ſubſtances are proper for perſons of dry atrabilarian conſtitutions, who are ſubject to aſtriction of the belly, and the piles, and will operate when ſtronger medicinal ſubſtances are ſometimes ineffectual; but that ſuch lenitive diet hurts thoſe whoſe bowels are weak and lax. He obſerves, that all watery ſubſtances are lenitive, and that even common water, whey, ſour milk, and butter milk have that effect;—that new milk, eſpecially aſſes milk, ſtimulates ſtill more when it ſours on the ſtomach; and that whey turned ſour will purge ſtrongly;—that moſt garden fruits are likewiſe laxative; and that ſome of them, as grapes, will throw ſuch as take them immoderately into a cholera morbus, or incurable diarrhœa.

betimes; and to avoid all intenſe thought. He ſhould uſe a diet of eaſy digeſtion; and avoid exceſſive heat and fatigue.

If want of appetite proceeds from errors in diet, or any other part of the patient's regimen, it ought to be changed. If naufea and reachings ſhew that the ſtomach is loaded with crudities, a vomit will be of ſervice. After this a gentle purge or two, of any of the bitter purging ſalts, may be taken. The patient ought next to uſe ſome of the ſtomachic bitters infuſed in wine. Though gentle evacuations be neceſſary, yet ſtrong purges and vomits are to be avoided, as they weaken the ſtomach, and hurt digeſtion.

Elixir of vitriol is an excellent medicine in moſt caſes of indigeſtion, weakneſs of the ſtomach, or want of appetite. From twenty to thirty drops of it may be taken twice or thrice a-day in a glaſs of wine and water. It may likewiſe be mixed with the tincture of the bark, one drachm of the former to an ounce of the latter, and two tea-ſpoonfuls of it taken in wine or water, as above.

The chalybeate waters, if drank in moderation, are generally of conſiderable ſervice in this caſe. The ſalt water has likewiſe good effects, but muſt not be uſed too freely. The waters of Harrowgate, Scarborough, Moffat, and moſt other Spas in Britain, may be uſed with advantage. All who are afflicted with indigeſtion and want of appetite, ſhould repair to theſe places of public rendezvous. The very change of air, and the cheerful company, will be of ſervice; not to mention the exerciſe, diſſipation, amuſements, &c.

## *The Heart-Burn,*

AS it is commonly called, is not a diſeaſe of that organ, but an uneaſy ſenſation of heat or acrimony about the pit of the ſtomach, which is ſometimes attended with anxiety, naufea, and vomiting.

It may proceed from debility of the ſtomach, indigeſtion, bile, the abounding of an acid in the ſtomach, &c. Perſons liable to this complaint ought to avoid ſtale liquors, acids, windy or greaſy aliments, and ſhould never uſe violent exerciſe ſoon after a plentiful meal. Many perſons have the heart-burn if they ride ſoon after dinner, provided they have drank ale, wine, or any fermented liquor; but are never troubled with it when they have drank rum, or brandy and water without any ſugar or acid.

When the heart-burn proceeds from debility of the ſtomach, or indigeſtion, the patient ought to take a doſe or two of rhubarb; afterwards he may uſe infuſions of the bark, or any other of the ſtomachic bitters, in wine or brandy. Exerciſe in the open air will be of uſe, and every thing that promotes digeſtion.

When bilious humours occaſion the heart-burn, a tea-ſpoonful of the ſweet ſpirit of nitre in a glaſs of water, or a cup of tea, will generally give eaſe. If it proceeds from the uſe of greaſy aliments, a drachm of brandy or rum may be taken.

If acidity or ſourneſs of the ſtomach occaſions the heart-burn, abſorbents are the proper medicines. In this caſe, an ounce of powdered chalk, half an ounce of fine ſugar, and a quarter of an ounce of gum-arabic, may be mixed in an Engliſh quart of water, and a tea-cupful of it taken as often as is neceſſary. Such as do not chooſe chalk may take a tea-ſpoonful of prepared oyſter-ſhells, or of the powder called crabs-eyes, in a glaſs of cinnamon or pepper-mint water. But the ſafeſt and beſt abſorbent is *magneſia alba*. This not only acts as an abſorbent, but likewiſe as a purgative; whereas chalk and other abſorbents of that kind, are apt to lie in the inteſtines and occaſion obſtructions. This powder is not diſagreeable, and may be taken in a cup of tea, or a glaſs of mint-water. A large tea-ſpoonful is the uſual doſe; but it may be taken in a much greater quantity when there is occaſion. Theſe things are now generally made up into lozenges for the conveniency of being carried in the pocket, and taken at pleaſure.

If wind cauſes this complaint, the moſt proper medicines are carminatives; as anniſeeds, juniper-berries, ginger, canella alba, cardamon ſeeds, &c. Theſe may either be chewed, or infuſed in wine, brandy, or other ſpirits. One of the ſafeſt medicines of this kind is the tincture made by infuſing an ounce of rhubarb, and a quarter of an ounce of the leſſer cardamon ſeeds, in an Engliſh pint of brandy. After this has digeſted for two or three days, it ought to be ſtrained, and four ounces of white ſugar-candy added to it. It muſt ſtand to digeſt a ſecond time till the ſugar be diſſolved. A table-ſpooful of it may be taken occaſionally for a doſe.

I have frequently known the heart-burn cured, particularly in pregnant women, by chewing green tea.

## CHAPTER XLV.

### *Nervous Diſeaſes*

ARE, of all thoſe incident to mankind, the moſt complicated and difficult to cure. A volume would not be ſufficient to point out their various appearances. They imitate almoſt every diſeaſe; and are ſeldom alike in two different perſons, or even in the ſame perſon at different times. They are continually changing ſhape; and upon every freſh attack, the patient thinks he feels ſymptoms which he never experienced before. Nor do they only affect the body; the mind likewiſe ſuffers, and is often rendered extremely weak and peeviſh. The low ſpirits, timoroufneſs, melancholy,

and ficklenefs of temper, which generally attend nervous diſorders, induce many to believe that they are entirely diſeaſes of the mind; but this change of temper is rather a conſequence, than the cauſe of nervous diſeaſes.

CAUSES.——Every thing that tends to relax or weaken the body, diſpoſes it to nervous diſeaſes, as indolence, exceſſive venery, drinking too much tea, or other weak watery liquors warm, frequent and copious bleeding, purging, vomiting, &c. Whatever hurts the digeſtion, or prevents the proper aſſimilation of the food has likewiſe this effect; as long faſting, exceſs in eating or drinking, the uſe of windy, crude, or unwholeſome aliments, an unfavourable poſture of the body, &c.

Nervous diſorders often proceed from intenſe application to ſtudy. Few ſtudious perſons are entirely free from them. Nor is this to be wondered at; intenſe thinking not only preys upon the ſpirits, but prevents the perſon from taking proper exerciſe, by which means the digeſtion is impaired, the nouriſhment prevented, and the ſolids relaxed. Grief and diſappointment likewiſe produce the ſame effects. More nervous patients date the commencement of their diſorders from the loſs of a huſband, a favourite child, or from ſome diſappointment in life, than from any other cauſe. Whatever weakens the body, or depreſſes the ſpirits, may occaſion nervous diſorders, as unwholeſome air, want of ſleep, great fatigue, diſagreeable apprehenſions, anxiety, vexation, &c.

SYMPTOMS.——We ſhall only mention ſome of the moſt general ſymptoms of theſe diſorders, as it would be both an uſeleſs and an endleſs taſk to enumerate the whole. They generally begin with windy inflations or diſtentions of the ſtomach and inteſtines; the appetite and digeſtion are uſually bad; yet ſometimes there is an uncommon craving for food, and a quick digeſtion. The food often turns ſour on the ſtomach; and the patient is troubled with vomiting of clear water, tough phlegm, or a blackiſh-coloured liquor, reſembling the grounds of coffee. Excruciating pains are often felt about the navel, attended with a rumbling or murmuring noiſe in the bowels. The body is ſometimes looſe, but more commonly bound, which occaſions a retention of wind and great uneaſineſs.

The urine is ſometimes in ſmall quantity, at other times very copious and quite clear. There is a great ſtraitneſs of the breaſt, with difficulty of breathing; violent palpitations of the heart; ſudden fluſhings of heat in various parts of the body; at other times a ſenſe of cold, as if water were poured on them; flying pains in the arms and limbs; pains in the back and belly, reſembling thoſe occaſioned by gravel; the pulſe very variable, ſometimes uncommonly ſlow, and at other times very quick; yawning, the hiccup, frequent ſighing, and a ſenſe of ſuffocation, as if from a ball or lump in the throat; alternate fits of crying and convul-

ſive laughing; the ſleep is unſound and ſeldom refreſhing; the patient is often troubled with the night-mare.

As the diſeaſe increaſes, the patient is moleſted with head-achs, cramps, and fixed pains in various parts of the body; the eyes are clouded, and often affected with pain and dryneſs; there is a noiſe in the ears, and often a dulneſs of hearing; in ſhort, the whole animal functions are impaired. The mind is diſturbed on the moſt trivial occaſions, and is hurried into the moſt perverſe commotions, inquietudes, terror, ſadneſs, anger, diffidence, &c. The patient is apt to entertain wild imaginations and extravagant fancies; the memory becomes weak, and the judgment fails.

Nothing is more characteriſtic of this diſeaſe than a conſtant dread of death. This renders thoſe unhappy perſons who labour under it, peeviſh, fickle, impatient, and apt to run from one phyſician to another; which is one reaſon why they ſeldom reap any benefit from medicine, as they have not ſufficient reſolution to perſiſt in any one courſe till it has time to produce its proper effects. They are likewiſe apt to imagine that they labour under diſeaſes from which they are quite free; and are very angry if any one attempts to ſet them right, or laugh them out of their notions.

REGIMEN.——Perſons afflicteſt with nervous diſeaſes ought never to faſt long. Their food ſhould be ſolid and nouriſhing, but of eaſy digeſtion. Fat meats and heavy ſauſes are hurtful. All exceſs ſhould be carefully avoided. They ought never to eat more at a time than they can eaſily digeſt; but if they feel themſelves weak and faint between meals, they ought to eat a bit of bread, and drink a glaſs of wine. Heavy ſuppers are to be avoided. Though wine in exceſs enfeebles the body, and impairs the faculties of the mind, yet taken in moderation, it ſtrengthens the ſtomach, and promotes digeſtion. Wine and water is a very proper drink at meals; but if wine ſours on the ſtomach, or the patient is much troubled with wind, brandy and water will anſwer better. Every thing that is windy or hard of digeſtion muſt be avoided. All weak and warm liquors are hurtful, as tea, coffee, punch, &c. People may find a temporary relief in the uſe of theſe, but they always increaſe the malady, as they weaken the ſtomach and hurt digeſtion. Above all things, drams are to be avoided. Whatever immediate eaſe the patient may feel from the uſe of ardent ſpirits, they are ſure to aggravate the malady, and prove certain poiſon at laſt. Theſe cautions are the more neceſſary, as moſt nervous people are peculiarly fond of tea and ardent ſpirits; to the uſe of which many of them fall victims.

Exerciſe in nervous diſorders is ſuperior to all medicines. Riding on horſeback is generally eſteemed the beſt, as it gives motion to the whole body without fatiguing it. I have known patients with whom walking agreed better, and others who were moſt benefited by riding in a carriage. Every one ought to uſe that which

he finds moſt beneficial. Long ſea-voyages have an excellent effect; and to thoſe who have ſufficient reſolution, we recommend this courſe. Even change of place, and the ſight of new objects, by diverting the mind, have a great tendency to remove theſe complaints. For this reaſon, a long journey, or a voyage, is of much more advantage than riding ſhort journeys near home.

A cool and dry air is proper, as it braces and invigorates the whole body. Few things tend more to relax and enervate than hot air, eſpecially that which is rendered ſo by great fires, or ſtoves in ſmall apartments. But when the ſtomach or bowels are weak, the body ought to be well guarded againſt cold, eſpecially in winter, by wearing a thin flannel waiſtcoat next the ſkin. This will keep up an equal perſpiration, and defend the alimentary canal from many impreſſions to which it would otherwiſe be ſubject, upon every ſudden change from warm to cold weather. Rubbing the body frequently with a fleſh-bruſh, or a coarſe linen cloth, is beneficial, as it promotes the circulation, perſpiration, &c. Perſons who have weak nerves ought to riſe early, and take exerciſe before breakfaſt, as lying too long a-bed cannot fail to relax the ſolids. They ought to be diverted, and kept as eaſy and cheerful as poſſible. Nothing hurts the nervous ſyſtem, or weakens the digeſtive powers, more than fear, grief, or anxiety.

MEDICINES.——Nervous diſeaſes are ſeldom radically cured, yet their ſymptoms may ſometimes be alleviated, and life rendered more comfortable by proper medicines.

When the patient is coſtive, he ought to take a little rhubarb, or ſome other mild purgative, and ſhould never ſuffer his body to be long bound. All ſtrong and violent purgatives are to be avoided, as aloes, jalap, &c. I have generally ſeen an infuſion of ſenna and rhubarb in brandy anſwer very well. This may be made of any ſtrength, and taken in ſuch quantity as the patient finds neceſſary. When digeſtion is bad, or the ſtomach relaxed and weak, the following infuſion of bark and other bitters may be uſed with advantage:

Take of Peruvian bark an ounce, gentian-root, orange-peel, and coriander-ſeed, of each half an ounce; let theſe ingredients be all bruiſed in a mortar, and infuſed in a bottle of brandy or whiſkey, for the ſpace of five or ſix days. A table-ſpoonful of the ſtrained liquor may be taken in half a glaſs of water, an hour before breakfaſt, dinner, and ſupper.

Few things tend more to ſtrengthen the nervous ſyſtem than cold bathing. This practice, if duly perſiſted in, will produce very extraordinary effects; but when the liver or other viſcera are obſtructed, or otherwiſe unſound, the cold bath is improper. It is therefore to be uſed with very great caution. The moſt proper ſeaſons are ſummer and autumn. It will be ſufficient, eſpecially for perſons of a ſpare habit, to go into the cold bath three or four times

a week. If the patient be weakened by it, or feels chilly for a long time after coming out, it is improper.

In patients afflicted with wind, I have always obſerved the greateſt benefit from the elixir of vitriol. It may be taken in the quantity of fifteen, twenty, or thirty drops, twice or thrice a-day in a glaſs of water. This both expels wind, ſtrengthens the ſtomach, and promotes digeſtion.

Opiates are generally extolled in theſe maladies; but as they only palliate the ſymptoms, and generally afterwards increaſe the diſeaſe, we adviſe people to be extremely ſparing in the uſe of them, leſt habit render them at laſt abſolutely neceſſary.

It would be an eaſy matter to enumerate many medicines which have been extolled for relieving nervous diſorders; but whoever wiſhes for a thorough cure muſt expect it from regimen alone; we ſhall therefore omit mentioning more medicines, and again recommend the ſtricteſt attention to diet, air, exerciſe, and amuſements.

## *Melancholy*

IS that ſtate of alienation or weakneſs of mind which renders people incapable of enjoying the pleaſures, or performing the duties of life. It is a degree of inſanity, and often terminates in abſolute madneſs.

CAUSES.——It may proceed from an hereditary diſpoſition; intenſe thinking, eſpecially where the mind is long occupied about one object; violent paſſions or affections of the mind, as love, fear, joy, grief, overweening pride, and ſuch-like. It may alſo be occaſioned by exceſſive venery; narcotic or ſtupefactive poiſons; a ſedentary life; ſolitude; the ſuppreſſion of cuſtomary evacuations; acute fevers or other diſeaſes. Violent anger will change melancholy into madneſs; and exceſſive cold, eſpecially of the lower extremities, will force the blood into the brain, and produce all the ſymptoms of madneſs. It may likewiſe proceed from the uſe of aliment that is hard of digeſtion, or which cannot be eaſily aſſimilated, from a callous ſtate of the integuments of the brain. To all which, we may add gloomy or miſtaken notions of religion.

SYMPTOMS.——When perſons begin to be melancholy, they are timorous; watchful; fond of ſolitude; fretful; captious and inquiſitive; ſolicitous about trifles; ſometimes niggardly, and at other times prodigal. The body is generally bound; the urine thin, and in ſmall quantity; the ſtomach and bowels inflated with wind; the complexion pale; the pulſe ſlow and weak. The functions of the mind are alſo greatly perverted; the patient often imagines himſelf dead, or changed into ſome other animal. Some have imagined their bodies were made of glaſs, or other brittle

ſubſtances, and were afraid to move leſt they ſhould be broken to pieces. The patient, in this caſe, unleſs carefully watched, is apt to put an end to his own life.

When the diſeaſe is owing to an obſtruction of cuſtomary evacuations, or any bodily diſorder, it is eaſier cured than when it proceeds from affections of the mind, or any hereditary taint. A diſcharge of blood from the noſe, looſeneſs, ſcabby eruptions, the bleeding piles, or the menſes, ſometimes carry off this diſeaſe.

REGIMEN.——The diet ſhould conſiſt chiefly of vegetables of a cooling and opening quality. Animal food, eſpecially ſalted or ſmoke-dried fiſh or fleſh, ought to be avoided. All kinds of ſhell-fiſh are bad. Aliments prepared with onions, garlic, or any thing that generates thick blood, are likewiſe improper. All kinds of fruits that are wholeſome may be eaten with advantage. Boerhaave gives an inſtance of a patient, who, by a long uſe of whey, water, and garden fruit, recovered, after having evacuated a great quantity of black-coloured matter.

Strong liquors of every kind ought to be avoided as poiſon. The moſt proper drink is water, whey, or very ſmall beer. Tea and coffee are improper. If honey agrees with the patient, it may be eaten freely, or his drink may be ſweetened with it. Infuſions of balm-leaves, penny-royal, the roots of wild valerian, or the flowers of the lime-tree, may be drank freely, either by themſelves, or ſweetened with honey, as the patient ſhall chooſe.

The patient ought to take as much exerciſe in the open air as he can bear. This tends to remove obſtructions, promotes the perſpiration, and all the other ſecretions. Every kind of madneſs is attended with a diminiſhed perſpiration; all means ought therefore to be uſed to promote that neceſſary and ſalutary diſcharge. Nothing can have a more direct tendency to increaſe the diſeaſe than confining the patient to a cloſe apartment. Were he forced to ride or walk a certain number of miles every day, it would tend greatly to alleviate his diſorder; but it would have ſtill a better effect, if he were obliged to labour a piece of ground. By digging, hoeing, planting, ſowing, &c. both the body and mind would be exerciſed. A long journey, or a voyage, eſpecially towards a warmer climate, with agreeable companions, has often very happy effects. A plan of this kind, with a ſtrict attention to diet, is a much more rational method of cure, than confining the patient within doors and plying him with medicines.

MEDICINE.——In the cure of this diſeaſe, particular attention muſt be paid to the mind. When the patient is in a low ſtate, his mind ought to be ſoothed and diverted with variety of amuſements, as entertaining ſtories, paſtimes, muſic, &c. This ſeems to have been the method of curing melancholy among the Jews, as we learn from the ſtory of Saul; and it is a very rational one. Nothing can remove diſeaſes of the mind ſo effectually, as applications to the mind itſelf, the moſt efficacious of which is

muſic. The patient's company ought likewiſe to conſiſt of ſuch perſons as are agreeable to him. People in this ſtate are apt to conceive unaccountable averſions againſt particular perſons; and the very ſight of ſuch perſons is ſufficient to diſtract their minds, and throw them into the utmoſt perturbation.

When the patient is high, evacuations are neceſſary. In this caſe, he muſt be bled, and have his body kept open by purging medicines, as manna, cream of tartar, or the ſoluble tartar. I have ſeen the laſt have very happy effects. It may be taken in the doſe of half an ounce diſſolved in water gruel, every day, for ſundry weeks, or even for months, if neceſſary. More or leſs may be given according as it operates. Vomits have likewiſe a good effect; but they muſt be pretty ſtrong, otherwiſe they will not operate.

Whatever increaſes the evacuation of urine or promotes perſpiration, has a tendency to remove this diſeaſe. Both theſe ſecretions may be promoted by the uſe of nitre and vinegar. Half a drachm of purified nitre may be given three or four times a-day in any manner that is moſt agreeable to the patient; and an ounce and a half of diſtilled vinegar may be daily mixed with his drink. Dr. Locker ſeems to think vinegar the beſt medicine that can be given in this diſeaſe.

Camphire and muſk have been uſed in this caſe with advantage. Ten or twelve grains of camphire may be rubbed in a mortar, with half a drachm of nitre, and taken twice a-day, or oftener, if the ſtomach will bear it. If it will not ſit upon the ſtomach in this form, it may be made into pills with gum aſafœtida and Ruſſian caſtor, and taken in the quantity above directed. If muſk is to be adminiſtered, a ſcruple or twenty-five grains of it may be made into a bolus with a little honey or common ſyrup, and taken twice or thrice a-day. We do not mean that all theſe medicines ſhould be adminiſtered at once; but which ever of them is given, muſt be duly perſiſted in, and where one fails, another may be tried.

As it is very difficult to induce patients, in this diſeaſe, to take medicines, we ſhall mention a few outward applications, which ſometimes do good; the principal of theſe are iſſues, ſetons, and warm bathing. Iſſues may be made in any part of the body, but they generally have the beſt effect near the ſpine. The diſcharge from theſe, may be greatly promoted, by dreſſing them with the mild bliſtering ointment, and keeping what are commonly called the orrice peaſe in them. The moſt proper place for a ſeton is between the ſhoulder-blades; and it ought to be placed upwards and downwards, or in the direction of the ſpine.

## *The Palſy*

IS a loſs or diminution of ſenſe or motion, or of both, in one or more parts of the body. Of all the affections called nervous, this is the moſt ſuddenly fatal. It is more or leſs dangerous, according to the importance of the part affected. A palſy of the heart, lungs, or any part neceſſary to life, is mortal. When it affects the ſtomach, the inteſtines, or the bladder, it is highly dangerous. If the face be affected, the caſe is bad, as it ſhows that the diſeaſe proceeds from the brain. When the part affected feels cold, is inſenſible, or waſtes away, or when the judgment and memory begin to fail, there is ſmall hope of a cure.

CAUSES.——The immediate cauſe of palſy is any thing that prevents the regular exertion of the nervous power upon any particular muſcle or part of the body. The occaſional and predispoſing cauſes are various, as drunkenneſs; wounds of the brain, or ſpinal marrow; preſſure upon the brain or nerves; very cold or damp air; the ſuppreſſion of cuſtomary evacuations; ſudden fear; want of exerciſe; or whatever greatly relaxes the ſyſtem, as drinking much tea*, or coffee, &c. The palſy may likewiſe proceed from wounds of the nerves themſelves, from the poiſonous fumes of metals or minerals, as mercury, lead, arſnic.

In young perſons of a full habit, the palſy muſt be treated in the ſame manner as the ſanguine apoplexy. The patient muſt be bled, bliſtered, and have his body opened by ſharp clyſters or purgative medicines. But, in old age, or when the diſeaſe proceeds from relaxation or debility, which is generally the caſe, a quite contrary courſe muſt be purſued. The diet muſt be warm and invigorating, ſeaſoned with ſpicy and aromatic vegetables, as muſtard, horſe-radiſh, &c. The drink may be generous wine, muſtard, whey, or brandy and water. Friction with the fleſh-bruſh, or a warm hand, is extremely proper, eſpecially on the parts affected. Bliſters may likewiſe be applied to the affected parts with advantage. When this cannot be done, they may be rubbed with the volatile liniment, or the nerve ointment of the Edinburgh diſpenſatory. One of the beſt external applications is electricity. The ſhocks, or rather vibrations, ſhould be received on the part affected; and they ought daily to be repeated for ſeveral weeks.

Cephalic ſnuff, or any thing that makes the patient ſneeze, is

* Many people imagine, that tea has no tendency to hurt the nerves, and that drinking the ſame quantity of warm water would be equally pernicious. This, however, ſeems to be a miſtake. Many perſons drink three or four cups of warm milk and water daily, without feeling any bad conſequences; yet the ſame quantity of tea will make their hands ſhake for twenty-four hours. That tea affects the nerves, is likewiſe evident, from its preventing ſleep, occaſioning giddineſs, dimneſs of the ſight, ſickneſs, &c.

likewiſe of uſe. Some pretend to have found great benefit from rubbing the parts affected with nettles; but this does not ſeem to be any way preferable to bliſtering. If the tongue is affected, the patient may gargle his mouth frequently with brandy and muſtard; or he may hold a bit of ſugar in his mouth wet with compound ſpirits of lavender. The wild valerian-root is a very proper medicine in this caſe. It may either be taken in an infuſion with ſage-leaves, or half a drachm of it in powder may be given in a glaſs of wine three times a-day. If the patient cannot uſe the valerian, he may take of *ſal volatile oleoſum*, compound ſpirits of lavender, and tincture of caſtor, each half an ounce; mix theſe together, and take forty or fifty drops in a glaſs of wine three or four times a-day. A table-ſpoonful of muſtard-ſeed taken frequently is a very good medicine. The patient ought likewiſe to chew cinnamon-bark, ginger or other warm ſpiceries.

Exerciſe is of the utmoſt importance in the palſy; but the patient muſt beware of cold, damp, and moiſt air. He ought to wear flannel next his ſkin; and if poſſible, ſhould remove into a warmer climate.

## *Tetanus, or the Locked-Jaw.*

UNDER this term may be comprehended the ſpaſmodic affections, called emproſthotonos, opiſthotonos, and triſmus, being one diſeaſe, differing only in the degree of its violence. When the body and head are bended forwards, it is called emproſthotonos; when they are carried backwards, and immovably fixed, it bears the appellation of opiſthotonos; and when the body is ſuſtained in an erect poſition, by the muſcle on the fore and back part of the trunk acting with equal ſtrength, the diſeaſe is called tetanus. When the muſcles of the jaw become more particularly affected, it is called triſmus, or locked jaw.

Theſe ſpaſmodic complaints affect both ſexes, and no age is exempted from their violence. They affect the male oftener than the female, and more particularly thoſe people who inhabit warm climates, and every climate at the warm ſeaſon of the year. Sometimes they occur in winter, independent of wounds.

CAUSES.——Wounds in any part of the body are ſometimes ſucceeded by this diſeaſe. But more particularly from thoſe in tendons, where a trifling injury will not unfrequently produce this complaint, when it is leaſt expected. Whereas, at other times, a wound of conſiderable magnitude, under apparently ſimilar circumſtances, will have no ſuch effect: and, even after operations in tendenous parts, it is by no means a frequent occurrence; when at other times, a ſimple fracture of the leg will produce it in all

its force. Cold, when accompanied with moiſture, will produce this diſeaſe; particularly when the body is expoſed while aſleep, on a damp pavement, or in a damp cellar, immediately after being heated and fatigued by exerciſe. Children are frequently ſeized with this diſeaſe in a ſhort time after delivery.

SYMPTOMS.——This diſeaſe, if it is from the effects of cold, generally comes on of a ſudden. But when from a wound, it gradually approaches about the tenth, fourteenth, or twentieth days after the accident. It often comes on at a time when the wound gives but little uneaſineſs, and is nearly healed. The patient firſt complains of an uneaſy ſenſation at the lower part of the breaſt bone, with a ſtiffneſs in the back part of the neck and muſcles, of the lower jaw, which increaſe with a painful ſenſation at the root of the tongue, and a ſlight difficulty in ſwallowing. But no appearance of ſwelling can be obſerved in the throat. The muſcles of the back now become rigid. This rigidity in a ſhort time extends to thoſe of the neck, attended with a pain in the direction of the ſpine of the back. At length the head, neck, and back bone are forcibly bent backwards. The body becomes fixed in that poſition. The muſcles of the jaw are now violently affected, attended with an impoſſibility of ſwallowing. Even liquids are thrown forcibly back through the noſe. Theſe ſymptoms generally take place on the ſecond or third day, when the body is frequently ſeized with violent convulſive ſpaſms; and the pain at the lower part of the breaſt bone increaſes, which ſhoots through towards the back.

The muſcles of the limbs now become rigid, and the body is ſo much bent backwards as to reſt on the back part of the head and heels. As the diſeaſe advances, the convulſive ſpaſms become more violent. At length tetanus is produced, from the muſcles on the fore and back part of the trunk, acting with an equal degree of vigour, ſuſtaining the body in an erect poſition. The pulſe is generally frequent with the other ſymptoms of fever, particularly when the diſeaſe is the conſequence of cold. The bowels are generally coſtive, attended with a retraction of the belly. The urine is diſcharged with difficulty, and ſometimes a ſuppreſſion of that evacuation takes place. The face appears pale, expreſſive of great anxiety and diſtreſs. The patient is ſeldom, if ever, delirious, although he ſlumbers but little, from which he frequently awakes on a ſudden, with violent ſpaſms. At length, the muſcular ſyſtem becomes more generally affected, and one univerſal convulſion cloſes the miſerable exiſtence of the patient.

MEDICINE.——In our attempt to cure this diſeaſe, the indications are nearly the ſame, when produced from cold or the conſequence of a wound, except when the wound is without ſwelling and inflammation. It ſhould then be dilated and dreſſed, with lint dipped in warm baſilicon, or any other ſtimulating application. After this, two, three, or even four grains of opium ſhould be given three or four times a day, according to the urgency of the ſymp-

toms, and tendency to induce ſleep; for aſtoniſhingquantities of this medicine may be given without having the leaſt tendency to make the patient ſlumber. This remedy ſhould be adminiſtered early, as well as large quantities of Madeira wine, before the ſwallowing becomes interrupted; and the ſyſtem ſhould be charged with mercury, with as much expedition as poſſible. For this purpoſe, two or three drachms of mercurial ointment muſt be rubbed into the inſide of the legs, thighs, and arms, morning and evening, and likewiſe into the muſcles more particularly affected with ſpaſms. To co-operate with thoſe medicines, the cold bath muſt be uſed, or cold water thrown over the body. The bowels ſhould be kept open with calomel, caſtor-oil, and clyſters. All thoſe remedies muſt be uſed at an early period of the complaint, ſo as to make as formidable an attack as poſſible on this very formidable diſeaſe, which too frequently terminates in the death of the patient, in ſpite of every effort to ſave him.

When it is about to take place in infants, the bowels muſt be opened with calomel or caſtor oil. But where it has actually taken place, little can be done. However, a ſimilar plan may be uſed with that recommended in grown perſons.

## *Of the Epilepſy or Falling Sickneſs.*

THE epilepſy is a ſudden deprivation of all the ſenſes, wherein the patient falls ſuddenly down, and is affected with violent convulſive motions. Children, eſpecially thoſe who are delicately brought up, are moſt ſubject to it. It more frequently attacks men than women, and is very difficult to cure. When the epilepſy attacks children, there is reaſon to hope that it will go off about the time of puberty. When it attacks any perſon after twenty years of age, the cure is difficult; but when after forty, a cure is hardly to be expected. If the fit continues only for a ſhort ſpace, and returns ſeldom, there is reaſon to hope; but if it continues long, and returns frequently, the proſpect is bad. It is a very unfavourable ſymptom when the patient is ſeized with the fits in his ſleep.

CAUSES.——The epilepſy is ſometimes hereditary. It may likewiſe proceed from blows, bruiſes, or wounds on the head; a collection of water, blood, or ſerous humours in the brain; a polypus; tumours or concretions within the ſkull; exceſſive drinking; intenſe ſtudy; exceſs of venery; worms; teething; ſuppreſſion of cuſtomary evacuations; too great emptineſs or repletion; violent paſſions or affections of the mind, as fear, joy, &c; hyſteric affections; contagion received into the body, as the infection of the ſmall-pox, meaſles, &c.

SYMPTOMS.——An epileptic fit is generally preceded by unuſual wearineſs; pain of the head; dullneſs; giddineſs; noiſe in the ears; dimneſs of ſight; palpitation of the heart; diſturbed ſleep; difficult breathing; the bowels are inflated with wind; the urine is in great quantity, but thin; the complexion is pale; the extremities are cold; and the patient often feels, as it were, a ſtream of cold air aſcending towards his head.

In the fit, the patient generally makes an unuſual noiſe; his thumbs are drawn in towards the palms of his hands; his eyes are diſtorted; he ſtarts, and foams at the mouth; his extremities are bent or twiſted various ways; he often diſcharges his ſeed, urine, and fæces involuntarily; and is quite deſtitute of all ſenſe and reaſon. After the fit is over, his ſenſes gradually return, and he complains of a kind of ſtupor, wearineſs, and pain of his head; but has no remembrance of what happened to him during the fit.

The fits are ſometimes excited by violent affections of the mind, a debauch of liquor, exceſſive heat, cold, or the like.

This diſeaſe, from the difficulty of inveſtigating its cauſes, and its ſtrange ſymptoms, was formerly attributed to the wrath of the gods, or the agency of evil ſpirits. In modern times it has often, by the vulgar, been imputed to witchcraft. It depends as much upon natural cauſes as any other malady; and its cure may often be effected by perſiſting in the uſe of proper means.

REGIMEN.——Epileptic patients ought, if poſſible, to breathe a pure and free air. Their diet ſhould be light but nouriſhing. They ought to drink nothing ſtrong, to avoid ſwine's fleſh, water fowl, and likewiſe all windy and oily vegetables, as cabbage, nuts, &c. They ought to keep themſelves cheerful, carefully guarding againſt all violent paſſions, as anger, fear, exceſſive joy, and the like.

Exerciſe is likewiſe of great uſe; but the patient muſt be careful to avoid all extremes either of heat or cold, all dangerous ſituations, as ſtanding upon precipices, riding, deep waters, and ſuch like.

MEDICINE.——The intentions of cure muſt vary according to the cauſe of the diſeaſe. If the patient be of a ſanguine temperament, and there be reaſon to fear an obſtruction in the brain, bleeding and other evacuations will be neceſſary. When the diſeaſe is occaſioned by cuſtomary evacuations, theſe, if poſſible, muſt be reſtored; if this cannot be done, others may be ſubſtituted in their place. Iſſues or ſetons in this caſe have often a very good effect. When there is reaſon to believe that the diſeaſe proceeds from worms, proper medicines muſt be uſed to kill, or carry off theſe vermin. When the diſeaſe proceeds from teething, the body ſhould be kept open by emollient clyſters, the feet frequently bathed in warm water, and, if the fits prove obſtinate, a bliſter may be put betwixt the ſhoulders. The ſame method is to be followed, when epileptic fits precede the eruption of the ſmall-pox, or meaſles, &c.

When the diſeaſe is hereditary, or proceeds from a wrong formation of the brain, a cure is not to be expected. When it is owing

to a debility, or too great an irritability of the nervous ſyſtem, ſuch medicines as tend to brace and ſtrengthen the nerves may be uſed, as the Peruvian bark, ſteel, &c.

The flowers of zinc have of late been highly extolled for the cure of the epilepſy. This medicine will not anſwer the expectations which have been raiſed concerning it, yet in obſtinate epileptic caſes, it deſerves a trial. The doſe is from one to three or four grains, which may be taken either in pills or a bolus, as the patient inclines. The beſt method is to begin with a ſingle grain four or five times a-day, and gradually to increaſe the doſe as far as the patient can bear it. I have known this medicine, when duly perſiſted in, prove beneficial.

Muſk has ſometimes been found to ſucceed in the epilepſy. Ten or twelve grains of it, with the ſame quantity of factitious cinnabar, may be made up into a bolus, and taken every night and morning.

Sometimes the epilepſy has been cured by electricity.

Convulſion-fits proceed from the ſame cauſes, and muſt be treated in the ſame manner as the epilepſy.

There is one particular ſpecies of convulſion-fits which commonly goes by the name of St. Vitus's dance, wherein the patient is agitated with ſtrange motions and geſticulations, which, by the common people, are generally believed to be the effects of witchcraft: This diſeaſe may be cured by repeated bleedings and purges; and afterwards uſing the medicines preſcribed above for the epilepſy, viz. the Peruvian bark and ſnake-root, &c. Chalybeate waters are found to be beneficial in this caſe. The cold bath is likewiſe of ſingular ſervice, and ought never to be neglected when the patient can bear it.

## *The Hiccup*

IS a ſpaſmodic or convulſive affection of the ſtomach and midriff, ariſing from any cauſe that irritates their nervous fibres.

It may proceed from exceſs in eating or drinking; from a hurt of the ſtomach; poiſons; inflammations or ſchirrous tumours of the ſtomach, inteſtines, bladder, midriff, or the reſt of the *viſcera*. In gangrenes, acute and malignant fevers, a hiccup is often the forerunner of death.

When the hiccup proceeds from the uſe of aliment that is flatulent, or hard of digeſtion, a draught of generous wine, or a drachm of any ſpirituous liquor, will generally remove it. If poiſon be the cauſe, plenty of milk and oil muſt be drank, as has been formerly recommended. When it proceeds from an inflammation of the ſtomach, &c. it is very dangerous. In this caſe, the cooling regimen ought to be ſtrictly obſerved. The patient muſt be bled, and take

frequently a few drops of the ſweet ſpirits of nitre in a cup of wine-whey. His ſtomach ſhould likewiſe be fomented with cloths dipped in warm water, or have bladders, filled with warm milk and water, applied to it.

When the hiccup proceeds from a gangrene or mortification, the bark, and other antiſeptics, are the only medicines which have a chance to ſucceed. When it is a primary diſeaſe, and proceeds from a foul ſtomach, loaded with a bilious humour, a gentle vomit and purge, if the patient be able to bear them, will be of ſervice. If it ariſes from flatulencies, the carminative medicines directed for the heart-burn muſt be uſed.

When the hiccup proves very obſtinate, recourſe muſt be had to the moſt powerful aromatic and antiſpaſmodic medicines. The principal of theſe is muſk; fifteen or twenty grains of which may be made into a bolus, and repeated occaſionally. Opiates are of ſervice; but they muſt be uſed with caution. A bit of ſugar, dipped in compound ſpirits of lavender, or the volatile aromatic tincture, may be taken frequently. External applications are ſometimes alſo beneficial; as the ſtomach plaiſter, or a cataplaſm of the Venice treacle of the Edinburgh or London diſpenſatory, applied to the region of the ſtomach.

I lately attended a patient who had almoſt a conſtant hiccup for above nine weeks. It was frequently ſtopped by the uſe of muſk, opium, wine, and other cordial and antiſpaſmodic medicines, but always returned. Nothing gave the patient ſo much eaſe as briſk ſmall-beer. By drinking freely of this, the hiccup was often kept off for ſeveral days, which was more than could be done by the moſt powerful medicines. The patient was at length ſeized with a vomiting of blood, which ſoon put an end to his life. Upon opening the body, a large ſchirrous tumour was found near the pylorus or right orifice of the ſtomach.

## *Cramp of the Stomach.*

THIS diſeaſe often ſeizes people ſuddenly, is very dangerous, and requires immediate aſſiſtance. It is moſt incident to perſons in the decline of life, eſpecially the nervous, gouty, hyſteric, and hypochondriac.

If the patient has any inclination to vomit, he ought to take ſome draughts of warm water, or weak camomile-tea, to cleanſe his ſtomach. After this, if he has been coſtive, a laxative clyſter may be given. He ought then to take laudanum. The beſt way of adminiſtering it is in a clyſter. Sixty or ſeventy drops of liquid laudanum may be given in a clyſter of warm water. This is much more cer-

tain than laudanum given by the mouth, which is often vomited, and in ſome caſes, increaſes the pain and ſpaſms in the ſtomach*.

If the pain and cramps return with great violence, after the effects of the anodyne clyſter are over, another, with an equal or a larger quantity of opium, may be given; and every four or five hours a bolus, with ten or twelve grains of muſk, and half a drachm of the Venice treacle.

In the mean time, the ſtomach ought to be fomented with cloths dipped in warm water, or bladders, filled with warm milk and water, ſhould be conſtantly applied to it†. I have often ſeen theſe produce the moſt happy effects. The anodyne balſam may alſo be rubbed on the part affected; and an antihyſteric plaiſter worn upon it for ſome time after the cramps are removed, to prevent their return.

In very violent and laſting pains of the ſtomach, ſome blood ought to be let, unleſs the weakneſs of the patient forbids it. When the pain or cramps proceed from a ſuppreſſion of the *menſes*, bleeding is of uſe. If they be owing to the gout, recourſe muſt be had to ſpirits, or ſome of the warm cordial waters. Bliſters ought likewiſe, in this caſe, to be applied to the ancles. I have often ſeen violent cramps and pains of the ſtomach removed, by covering it with a large plaiſter of Venice treacle.

## *Of the Night-Mare.*

IN this diſeaſe, the patient, in time of ſleep, imagines he feels an uncommon oppreſſion or weight about his breaſt or ſtomach, which he can by no means ſhake off. He groans, and ſometimes cries out, though oftner he attempts to ſpeak in vain. Sometimes he imagines himſelf engaged with an enemy, and in danger of being killed, attempts to run away, but finds he cannot. Sometimes he fancies himſelf in a houſe that is on fire, or that he is in danger of being drowned in a river. He often thinks he is falling over a precipice, and the dread of being daſhed to pieces ſuddenly awakes him.

This diſorder has been ſuppoſed to proceed from too much blood: from a ſtagnation of blood in the brain, lungs, &c. But it is rather a nervous affection, and ariſes chiefly from indigeſtion. Perſons of weak nerves, who lead a ſedentary life, and live full, are moſt commonly afflicted with the night-mare. Nothing tends more to produce it than heavy ſuppers, eſpecially when eaten late, or the patient goes to bed ſoon after. Wind is a very frequent cauſe of this

* Laudanum ſhould always be tried by the mouth in large doſes, as it can be given without delay; which is of the utmoſt conſequence in ſo dangerous a diſeaſe. (I. C.)

† The patient may go into the warm bath, which is more efficacious. (I. C.

diſeaſe; for which reaſon, thoſe who are afflicted with it, ought to avoid all flatulent food. Deep thought, anxiety, or any thing that oppreſſes the mind, ought to be avoided.

As perſons afflicted with the night-mare generally moan, or make ſome noiſe in the fit, they ſhould be waked, or ſpoken to by ſuch as hear them, as the uneaſineſs generally goes off as ſoon as the patient is awake. Dr. Whytt ſays, he generally found a dram of brandy, taken at bed-time, prevent this diſeaſe. That, however, is a bad cuſtom, and in time loſes its effect. The patient ſhould rather depend upon the uſe of food of eaſy digeſtion, cheerfulneſs, exerciſe through the day, and a light ſupper taken early, than accuſtom himſelf to drams. A glaſs of peppermint-water will often promote digeſtion as much as a glaſs of brandy, and is much ſafer. After a perſon of weak digeſtion, however, has eaten flatulent food, a dram may be neceſſary; in this caſe, it is the moſt proper medicine.

## *Of Swoonings.*

PEOPLE of weak nerves or delicate conſtitutions, are liable to ſwoonings or fainting fits. Theſe are ſeldom dangerous when duly attended to; but when wholly neglected, or improperly treated, they often prove hurtful, and ſometimes fatal.

The general cauſes of ſwoonings are, ſudden tranſition from cold to heat; breathing air that is deprived of its proper ſpring or elaſticity; great fatigue; exceſſive weakneſs; loſs of blood; long faſting; fear, grief, and other violent paſſions or affections of the mind.

Perſons who have been long expoſed to cold, often faint or fall into a ſwoon, upon coming into the houſe, eſpecially if they drink hot liquor, or ſit near a large fire. This might eaſily be prevented by people taking care not to go into a warm room immediately after they have been expoſed to the cold air, to approach the fire gradually, and not to eat or drink any thing hot, till the body has been gradually brought into a warm temperature.

When any one, in conſequence of neglecting theſe precautions, falls into a ſwoon, he ought immediately to be removed to a cooler apartment, to have ligatures applied above his knees and elbows, and to have his hands and face ſprinkled with vinegar or cold water. He ſhould likewiſe be made to ſmell to vinegar, and ſhould have a ſpoonful or two of water, if he can ſwallow, with about a third-part of vinegar mixed with it, poured into his mouth. If theſe ſhould not remove the complaint, it will be neceſſary to bleed the patient, and afterwards to give him a clyſter.

As air that is breathed frequently loſes its elaſticity or ſpring, it is no wonder, if perſons who reſpire in it, often fall into a ſwoon or fainting fit. They are, in this caſe, deprived of the very principle

of life. Hence it is, that fainting fits are ſo frequent in all crowded aſſemblies, eſpecially in hot ſeaſons. Such fits, however, muſt be conſidered as a kind of temporary death; and, to the weak and delicate, they ſometimes prove fatal. They ought, with the utmoſt care, to be guarded againſt. The method of doing this is obvious. Let aſſembly-rooms, and all other places of public reſort, be large and well ventilated; and let the weak and delicate avoid ſuch places, particularly in warm ſeaſons.

A perſon who faints, in ſuch a ſituation, ought immediately to be carried into the open air; his temples ſhould be rubbed with ſtrong vinegar or brandy, and volatile ſpirits or ſalts held to his noſe. He ſhould be laid upon his back with his head low, and have a little wine, or ſome other cordial, as ſoon as he is able to ſwallow it, poured into his mouth. If the perſon has been ſubject to hyſteric fits, caſtor or aſafœtida ſhould be applied to the noſe, or burnt feathers, horn, or leather, &c.

When fainting-fits proceed from mere weakneſs or exhauſtion, which is often the caſe after great fatigue, long faſting, loſs of blood, or the like, the patient muſt be ſupported with generous cordials, as jellies, wines, ſpirituous liquors, &c. Theſe, however, muſt be given at firſt in very ſmall quantities, and increaſed gradually as the patient is able to bear them. He ought to be allowed to lie quite ſtill and eaſy upon his back, with his head low, and ſhould have freſh air admitted into his chamber. His food ſhould conſiſt of nouriſhing broths, ſago-gruel with wine, new milk, and other things of a light and cordial nature. Theſe thing are to be given out of the fit. All that can be done in the fit is, to let him ſmell to a bottle of Hungary-water, *eau de luce*, or ſpirits of hartſhorn, and to rub his temples with warm brandy, or to lay a compreſs dipped in it to the pit of the ſtomach.

In fainting-fits that proceed from fear, grief, or other violent paſſions or affections of the mind, the patient muſt be very cautiouſly managed. He ſhould be ſuffered to remain at reſt, and only made to ſmell ſome vinegar. After he is come to himſelf, he may drink freely of warm lemonade, or balm-tea, with ſome orange or lemon-peel in it. It will likewiſe be proper, if the fainting-fits have been long and ſevere, to clean the bowels by throwing in an emollient clyſter.

It is common in fainting-fits, from whatever cauſe they proceed, to bleed the patient. This practice may be very proper in ſtrong perſons of a full habit; but in thoſe who are weak and delicate, or ſubject to nervous diſorders, it is dangerous. The proper method with ſuch people is, to expoſe them to the free air, and to uſe cordial and ſtimulating medicines, as volatile ſalts, Hungary-water, ſpirits of lavender, tincture of caſtor, and the like.

## *Of Flatulencies, or Wind.*

ALL nervous patients, without exception, are afflicted with wind or flatulencies in the ſtomach and bowels, which ariſe chiefly from the want of tone or vigour in theſe organs. Crude, flatulent aliment, as green peaſe, beans, coleworts, cabbages, and ſuch-like, may increaſe this complaint; but ſtrong and healthy people are ſeldom troubled with wind, unleſs they either overload their ſtomachs, or drink liquors that are in a fermenting ſtate, and conſequently full of elaſtic air. While, therefore, the matter of flatulence proceeds from our aliments, the cauſe which makes air ſeparate from them, in ſuch quantity as to occaſion complaints, is almoſt always a fault of the bowels themſelves, which are too weak either to prevent the production of elaſtic air, or to expel it after it is produced.

To relieve this complaint, ſuch medicines ought to be uſed as have a tendency to expel wind, and by ſtrengthening the alimentary canal, to prevent its being produced there*.

The liſt of medicines for expelling wind is very numerous; they often diſappoint the expectations of both the phyſician and his patient. The moſt celebrated among the claſs of carminatives are junipar-berries; the roots of ginger and zedoary; the ſeeds of aniſe, caraway, and coriander; gum aſafœtida and opium; the warm waters, tinctures, and ſpirits, as the aromatic water, the tincture of woodfoot, the volatile aromatic ſpirit, æther, &c.

Dr. Whytt ſays, he found no medicines more efficacious in expelling wind than æther and laudanum. He generally gave the laudanum in a mixture with peppermint-water and tincture of caſtor, or ſweet ſpirits of nitre. Sometimes, in place of this, he gave opium in pills with aſafœtidâ. He obſerves, that the good effects of opiates are equally conſpicuous, whether the flatulence be contained in the ſtomach or inteſtines; whereas, thoſe warm medicines, commonly called *carminatives*, do not often give immediate relief, except when the wind is in the ſtomach.

With regard to æther, the Doctor ſays, he has often ſeen very good effects from it in flatulent complaints, where other medicines failed. The doſe is a tea-ſpoonful mixed with two table-ſpoonfuls of water†. In gouty caſes, he obſerves, that æther, a glaſs of French brandy, or of the aromatic water, or ginger, either taken in ſub-

* Many nervous people find great benefit from eating a dry biſcuit, eſpecially when the ſtomach is empty. This is one of the beſt carminative medicines in all complaints of the ſtomach, ariſing from flatulence, indigeſtion, &c.

† Though the patient may begin with this quantity, it will be neceſſary to increaſe the doſe gradually as the ſtomach can bear it. Æther is now given in conſiderably greater doſes than it was in Dr. Whytt's time.

ſtance or infuſed in boiling water, are among the beſt medicines for expelling wind.

When the caſe of flatulent patients is ſuch as makes it improper to give them warm medicines inwardly, he recommends external applications, which are ſometimes of advantage. Equal parts of the anti hyſteric and ſtomach plaiſter may be ſpread upon a piece of ſoft leather, of ſuch ſize as to cover the greater part of the belly. This ſhould be kept on for a conſiderable time, provided the patient be able to bear it; if it ſhould give great uneaſineſs, it may be taken off, and the following liniment uſed in its ſtead:

Take of Bates's anodyne balſam an ounce; of the expreſſed oil of mace half an ounce; oil of mint two drachms. Let theſe be mixed together, and about a table-ſpoonful well rubbed on the parts at bed-time.

For ſtrengthening the ſtomach and bowels, and leſſening the production of flatulence, the Doctor recommends the Peruvian bark, bitters, chalybeates, and exerciſe. In flatulent caſes, he thinks ſome nutmeg or ginger ſhould be added to the tincture of the bark and bitters, and that the aromatic powder ſhould be joined with the filings of iron.

When windy complaints are attended with coſtiveneſs, which is often the caſe, few things will be found to anſwer better than four or five of the following pills taken every night at bed-time.

Take of aſafœtida, two drachms; ſuccotrine aloes, ſalt of iron, and powdered ginger, of each one drachm; as much of the elixir proprietatis as will be ſufficient to form them into pills.

On the other hand, when the body is too open, twelve or fifteen grains of rhubarb, with half a drachm, or two ſcruples of the Japonic confection, given every other evening, will have very good effects.

In thoſe flatulent complaints which come on about the time the menſes ceaſe, repeated ſmall bleedings often give more relief than any other remedy.

With regard to diet, the Doctor obſerves, that tea, and all flatulent aliments, are to be avoided; and that for drink, water with a little brandy or rum is preferable to malt liquor, and in moſt caſes to wine.

Dr. Whytt has paid great attention to this ſubject; his ſentiments upon it, in a great meaſure, agree with mine. I ſhall only add to his obſervation, that exerciſe is, in my opinion, ſuperior to all medicine, both for preventing the production and likewiſe for expelling of flatulencies. Theſe effects are not to be expected from ſauntering about, or lolling in a carriage; but from labour, or ſuch active amuſements as give exerciſe to every part of the body.

## *Of Low Spirits.*

ALL who have weak nerves are ſubject to low ſpirits in a greater or leſs degree. Generous diet, the cold bath, exerciſe, and amuſements are the moſt likely means to remove this complaint. It is greatly increaſed by ſolitude and indulging gloomy ideas; but may often be relieved by cheerful company and ſprightly amuſements.

When low ſpirits are owing to a weak relaxed ſtate of the ſtomach and bowels, an infuſion of the bark with cinnamon or nutmeg will be proper. Steel joined with aromatics may be uſed with advantage; but riding, and a proper diet, are moſt to be depended on.

When they ariſe from a foulneſs of the ſtomach and inteſtines, or obſtruction in the hypochondriac viſcera, aloetic purges will be proper. I have known the Harrowgate ſulphur-water of ſervice in this caſe.

When low ſpirits proceed from a ſuppreſſion of the menſtrual or of the hæmorrhoidal flux, theſe evacuations may either be reſtored, or ſome others ſubſtituted in their place, as iſſues, ſetons, or the like. Dr. Whytt obſerves, that nothing has ſuch ſudden good effects in this caſe as bleeding, if the ſtrength of the patient will admit of it.

When low ſpirits have been brought on by long continued grief, anxiety, or other diſtreſs of mind, agreeable company, variety of amuſements, and change of place, eſpecially travelling into foreign countries, will afford the moſt certain relief.

Perſons afflicted with low ſpirits ſhould avoid all kinds of exceſs, eſpecially of venery and ſtrong liquors. The moderate uſe of wine and other ſtrong liquors is by no means hurtful; but when taken to exceſs, they weaken the ſtomach, and depreſs the ſpirits. This caution is the more neceſſary, as the unfortunate and melancholy often fly to ſtrong liquors for relief, by which means they never fail to precipitate their own deſtruction.

## *Of Hyſteric Affections.*

THESE likewiſe belong to the numerous tribe of nervous diſeaſes, which may be juſtly reckoned the reproach of medicine. Women of a delicate habit, whoſe ſtomach and inteſtines are relaxed, and whoſe nervous ſyſtem is extremely ſenſible, are moſt ſubject to hyſteric complaints. In ſuch perſons, an hyſteric fit, as it is called, may be brought on by an irritation of the nerves of the ſtomach or inteſtines, by wind, acrid humour, or the like. A ſudden ſuppreſſion of the *menſes* often gives riſe to hyſteric fits. They may likewiſe

be excited by violent paſſions or affections of the mind, as fear, grief, anger, or great diſappointments.

Sometimes the hyſteric fits reſemble a ſwoon or fainting fit, during which the patient lies as in a ſleep, only the breathing is ſo low as ſcarce to be perceived. At other times the patient is affected with catchings and ſtrong convulſions. The ſymptoms which precede hyſteric fits are likewiſe various in different perſons. Sometimes the fits come on with coldneſs of the extremities, yawning and ſtretching, lowneſs of ſpirits, oppreſſion and anxiety. At other times the approach of the fit is foretold by a feeling, as if there were a ball at the lower part of the belly, which gradually riſes towards the ſtomach, where it occaſions inflation, ſickneſs, and ſometimes vomiting; afterwards it riſes into the gullet, and occaſions a degree of ſuffocation, to which quick breathing, palpitation of the heart, giddineſs of the head, dimneſs of the ſight, loſs of hearing, with convulſive motions of the extremities and other parts of the body, ſucceed. The hyſteric paroxyſm is often introduced by an immoderate fit of laughter, and ſometimes it goes off by crying. Indeed, there is not much difference between the laughing and crying of an highly hyſteric lady.

Our aim in the treatment of this diſeaſe muſt be to ſhorten the fit or paroxyſm when preſent, and to prevent its return. The longer the fits continue, and the more frequently they return, the diſeaſe becomes the more obſtinate. Their ſtrength is increaſed by habit, and they induce ſo great a relaxation of the ſyſtem, that it is with difficulty removed.

It is cuſtomary, during the hyſteric fit or paroxyſm, to bleed the patient. In ſtrong perſons of a plethoric habit, and where the pulſe is full, this may be proper; but in weak and delicate conſtitutions, or where the diſeaſe has been of long ſtanding, or ariſes from inanition, it is not ſafe. The beſt courſe in ſuch caſes is to rouſe the patient by ſtrong ſmells, as burnt feathers, aſafœtida, or ſpirits of hartſhorn, held to the noſe. Hot bricks may be applied to the ſoles of the feet, and the legs, arms, and belly may be ſtrongly rubbed with a warm cloth. But the beſt application is to put the feet and legs into warm water. This is peculiarly proper when the fits precede the flow of the menſes. In caſe of coſtiveneſs, a laxative clyſter with aſafœtida will be proper; and as ſoon as the patient can ſwallow, two table-ſpoonfuls of a ſolution of aſafœtida may be given*.

The radical cure of this diſorder will be beſt attempted at a time when the patient is moſt free from the fits. It will be greatly pro-

* When hyſteric fits are occaſioned by ſympathy, they may be cured by exciting an oppoſite paſſion. This is ſaid to have been the caſe of a whole ſchool of young ladies in Holland, who were all cured by being told, that the firſt who was ſeized ſhould be burnt to death. But this method of cure, to my knowledge, will not always ſucceed. I would therefore adviſe, that young ladies who are ſubject to hyſteric fits, ſhould not be ſent to boarding ſchools, as the diſeaſe may be caught by imitation. I have known madneſs itſelf brought on by ſympathy.

moted by a proper attention to diet. A milk and vegetable diet when duly perſiſted in, will often perform a cure. If however the patient has been accuſtomed to a more generous diet, it will not be ſafe to leave it off all at once, but by degrees. The moſt proper drink is water, with a ſmall quantity of ſpirits. A cool dry air is the beſt. Cold bathing and every thing that braces the nerves, and invigorates the ſyſtem, is beneficial; but lying too long in bed, or whatever relaxes the body, is hurtful. It is of the greateſt importance to have the mind kept conſtantly eaſy and cheerful, and, if poſſible, to have it always engaged in ſome agreeable and intereſting purſuit.

The proper medicines are thoſe which ſtrengthen the alimentary canal and the whole nervous ſyſtem, as the preparations of iron, the Peruvian bark, and other bitters. Twenty drops of the elixir of vitriol, in a cup of the infuſion of the bark, may be taken twice or thrice a-day. The bark and iron may likewiſe be taken in ſubſtance, provided the ſtomach can bear them; but they are generally given in too ſmall doſes to have any effect. The chalybeate waters generally prove beneficial in this diſorder.

If the ſtomach is loaded with phlegm, vomits will be of uſe; but they ſhould not be too ſtrong, nor frequently repeated, as they tend to relax and weaken the ſtomach. If there be a tendency to coſtiveneſs, it muſt be removed either by diet, or by taking an opening pill as often as it ſhall be found neceſſary.

To leſſen the irritability of the ſyſtem, antiſpaſmodic medicines will be of uſe. The beſt antiſpaſmodic medicines are muſk, opium, and caſtor. When opium diſagrees with the ſtomach, it may either be applied externally, or given in clyſters. It is often ſucceſsful in removing thoſe periodical head-achs to which hyſteric and hypochondriac patients are ſubject. Caſtor has in ſome caſes been found to procure ſleep where opium failed; for which reaſon, Dr. Whytt adviſes, that they ſhould be joined together. He likewiſe recommends the antihyſteric plaiſter to be applied to the *abdomen**.

Hyſteric women are often afflicted with cramps in various parts of the body, which are moſt apt to ſeize them in bed, or when aſleep. The moſt efficacious medicines in this caſe are opium, bliſters, and warm bathing or fomentations. When the cramp or ſpaſm is very violent, opium is the medicine moſt to be depended on. In milder caſes, immerſing the feet and legs in warm water, or applying a bliſter to the part affected, will often be ſufficient to remove the complaint. In patients whoſe nerves are uncommonly delicate and ſenſible, it will be better to omit the bliſter, and to attempt the cure by opiates, muſk, camphire, and the warm bath.

Cramps are often prevented or cured by compreſſion. Thus cramps in the legs are prevented, and ſometimes removed, by tight

* Though antiſpaſmodics and anodynes are univerſally recommended in this diſeaſe, yet all the extraordinary cures that I ever knew in hyſteric caſes, were performed by means of tonic and corroborating medicines.

bandages; and when convulsions arise from a flatulent distention of the intestines, or from spasms beginning in them, they may be often lessened or cured by making a pretty strong compression upon the abdomen by means of a broad belt. A roll of brimstone held in the hand is frequently used as a remedy for cramps. Though this seems to owe its effect chiefly to imagination; yet, as it sometimes succeeds, it merits a trial*. When spasms or convulsive motions arise from sharp humours in the stomach and intestines, no lasting relief can be procured till these are either corrected or expelled. The Peruvian bark has sometimes cured periodic convulsions after other medicines had failed.

## *Of Hypochondriac Affections.*

THIS disease generally attacks the indolent, the luxurious, the unfortunate, and the studious. It becomes daily more common in this country, owing, no doubt, to the increase of luxury and sedentary employments. It has so near a resemblance to the immediately preceding, that many authors consider them as the same disease, and treat them accordingly. They require however a very different regimen; and the symptoms of the latter, though less violent, are more permanent than those of the former.

Men of a melancholy temperament, whose minds are capable of great attention, and whose passions are not easily moved, are, in the advanced periods of life, most liable to this disease. It is usually brought on by long and serious attention to abstruse subjects, grief, the suppression of customary evacuations, excess of venery, the repulsion of cutaneous eruptions, long-continued evacuations, obstructions in some of the viscera, as the liver, spleen, &c.

Hypochondriac persons ought never to fast long, and their food should be solid and nourishing. All accescent and windy vegetables are to be avoided. Flesh meats agree best with them, and their drink should be old claret, or good Madeira. Should these disagree with the stomach, water with a little brandy or rum in it may be drank.

Cheerfulness and serenity of mind are by all means to be cultivated. Exercise of every kind is useful. The cold bath is likewise beneficial; and, where it does not agree with the patient, frictions with the flesh-brush or a coarse cloth may be tried. If the patient has it in his power, he ought to travel either by sea or land. A voyage or a long journey, especially towards a warmer climate, will be of more service than any medicine.

* Some persons afflicted with cramps pretend to reap great benefit from small bundles of rosemary tied all night about their feet, ancles, and knees.

The general intentions of cure, in this diſeaſe, are to ſtrengthen the alimentary canal, and to promote the ſecretions. Theſe intentions will be beſt anſwered by the different preparations of iron and the bark, which, after proper evacuations, may be taken as directed in the preceding diſeaſe.

If the patient be coſtive, it will be neceſſary to make uſe of ſome gentle opening medicine, as pills compoſed of equal parts of aloes, rhubarb, and aſafœtida, with as much of the elixir proprietatis as is neceſſary to form the ingredients into pills. Two, three, or four, of theſe may be taken as often as it ſhall be found needful, to keep the body gently open. Such as cannot bear the aſafœtida may ſubſtitute Spaniſh ſoap in its place.

A cheerful glaſs may have good effects in this diſeaſe, but all manner of exceſs is hurtful. Intenſe ſtudy, and every thing that depreſſes the ſpirits, are likewiſe pernicious.

Though the general ſymptoms and treatment of nervous diſorders were pointed out in the beginning of this chapter; yet, for the benefit of the unhappy perſons afflicted with theſe obſtinate and complicated maladies, I have treated ſeveral of their capital ſymptoms under diſtinct or ſeparate heads. Theſe are not to be conſidered as different diſeaſes, but as various modifications of the ſame diſeaſe. They all ariſe from the ſame general cauſes, and require nearly the ſame method of treatment. There are many other ſymptoms that merit particular attention, which the nature of my plan will not permit me to treat of at full length. I therefore omit them, and conclude this chapter with a few remarks on the means of preventing or avoiding nervous diſorders.

In all perſons thus afflicted, there is a great delicacy and ſenſibility of the whole nervous ſyſtem, and an uncommon degree of weakneſs of the organs of digeſtion. Theſe may be either natural or acquired. When owing to a defect in the conſtitution, they are hardly to be removed; but may be mitigated by proper care. When induced by diſeaſes, as long or repeated fevers, profuſe hæmorrhages, or the like, they prove alſo very obſtinate, and will yield only to a courſe of regimen calculated to reſtore and invigorate the habit.

But nervous affections ariſe more frequently from cauſes, which it is, in a great meaſure, in our power to avoid, than from diſeaſes, or an original fault in the conſtitution, &c. Exceſſive grief, intenſe ſtudy, improper diet, and neglect of exerciſe, are the great ſources of this extenſive claſs of diſeaſes.

Grief indulged, deſtroys the appetite and digeſtion, depreſſes the ſpirits, and induces an univerſal relaxation and debility of the whole ſyſtem. Inſtances of this are daily to be ſeen. The loſs of a near relation, or any other misfortune in life, often occaſions the moſt complicated ſeries in nervous ſymptoms. Such misfortunes are not to be avoided, but their effects, by a vigorous and proper exertion of the mind, might be rendered leſs hurtful. We refer the reader to the article GRIEF, in the chapter on the paſſions.

The effects of intenſe ſtudy are pretty ſimilar to thoſe occaſioned by grief. It preys upon the animal ſpirits, and deſtroys the appetite and digeſtion. To prevent theſe effects, ſtudious perſons ought, according to the poet, *to toy with their books**. They ſhould never ſtudy too long at a time; nor attend long to one particular ſubject, eſpecially if it be of a ſerious nature. They ought likewiſe to be attentive to their poſture, and take care frequently to unbend their minds by muſic, diverſions, or going into agreeable company.

With regard to diet, nervous diſeaſes may be induced either by exceſs or inanition. Both of theſe extremes hurt the digeſtion. When Nature is oppreſſed with freſh loads of food, before ſhe has had time to digeſt and aſſimilate the former meal, her powers are weakened. On the other hand, when the food is not ſufficiently nouriſhing, or is taken too ſeldom, the bowels are inflated with wind. Theſe extremes are with equal care to be avoided. They both tend to induce a relaxation, and debility of the nervous ſyſtem, with all its conſequences.

The moſt general cauſe of nervous diſorders is *indolence*. The active and laborious are ſeldom troubled with them. They are reſerved for the children of eaſe and affluence, who generally feel their keeneſt force. The means of prevention and cure are both in their power. If the conſtitution of human nature be ſuch, that man muſt either labour or ſuffer diſeaſes, no individual has a right to expect exemption from the general rule.

Thoſe who are willing to take exerciſe, but whoſe occupations confine them to the houſe, and perhaps to an unfavourable poſture, deſerve pity.

We have, in the former part of this book, endeavoured to lay down rules for their conduct; and where theſe cannot be complied with, their place may, in ſome meaſure, be ſupplied by the uſe of bracing and ſtrengthening medicines, as the bark, with other bitters; the preparations of ſteel; the elixir of vitriol, &c.

## CHAPTER XLVI.

### *Diſorders of the Senſes.*

WE do not mean to give a deſcription of the organs by which the ſenſes are performed; but to point out ſome of the diſeaſes to which theſe organs are moſt liable, and to ſhew how they may be prevented or remedied.

* Armſtrong on health.

## *Of the Eye.*

NO organ of the body is ſubject to more diſeaſes than the eye; nor is there any one of which the diſeaſes are more difficult to cure. Though more ignorant perſons pretend to cure theſe than any other claſs of diſeaſes; yet a very ſuperficial acquaintance with the ſtructure of the eye, and the nature of viſion, will be ſufficient to convince any one of the danger of truſting to them. Theſe diſeaſes often exceed the ſkill of the moſt learned phyſician; hence we may infer the danger of truſting them to ignorant quacks, who put out more eyes than they cure. But, though the diſeaſes of the eye can ſeldom be cured, they might often, by due care, be prevented; and, even where the ſight is totally loſt, many things might be done, which are generally neglected, to render the perſon both more uſeful to himſelf and to ſociety*.

The eyes are hurt by viewing bright or luminous objects; keeping the head too long in a hanging poſture; violent head-achs; exceſſive venery; the long uſe of bitters; the effluvia from acrid or volatile ſubſtances; various diſeaſes; as the ſmall-pox, meaſles, &c. but, above all, from night-watching, and candle-light ſtudies. Long faſting is likewiſe hurtful to the eyes, and frequent heats and colds are no leſs pernicious. The eyes are often hurt by the ſtoppage of cuſtomary evacuations; as morning ſweats; ſweating of the feet; the menſes in women; and the bleeding piles in men. All kinds of exceſs are hurtful to the ſight, particularly the immoderate uſe of ardent ſpirits and other ſtrong liquors.

In all diſeaſes of the eyes, eſpecially thoſe attended with inflammation, the cool regimen ought to be obſerved. The patient muſt abſtain from all ſpirituous liquors. The ſmoke of tobacco, ſmoky rooms, the vapours of onions and garlic, and all vivid lights and glaring colours, are carefully to be avoided. The drink may be water, whey, or ſmall beer; and the aliment muſt be light and of eaſy digeſtion.

For preventing diſorders of the eyes, iſſues and ſetons are of prime uſe. Every perſon, whoſe eyes are tender, ought to have one or more of theſe in ſome part of the body. It will likewiſe be of uſe to keep the body gently open, and either to bleed or purge every

* It is pity thoſe who have the misfortune to be born blind, or who loſe their ſight when young, ſhould be ſuffered to remain in ignorance, or to beg. This is both cruelty and want of economy. There are many employments of which blind perſons are very capable, as knitting, carding, turning a wheel, teaching languages, &c. Nor are inſtances wanting of perſons who have arrived at the higheſt pitch of learning, without having the leaſt idea of light. Witneſs the late famous Nicholas Sanderſon of Cambridge, and Dr. Thomas Blacklock of Edinburgh. The former was one of the firſt mathematicians of his age, and the latter, beſides being a good poet and philoſopher, is maſter of all the learned languages, and a very conſiderable adept in the liberal arts.

ſpring and fall. All exceſs and night ſtudies are to be avoided. Such as do not chooſe a ſeton or an iſſue, will find benefit from wearing a ſmall Burgundy-pitch plaſter between their ſhoulders.

A *gutta ſerena*, or *amauroſis*, is an abolition of the ſight without any apparent cauſe or fault in the eyes. When it is owing to a decay or waſting of the optic nerve, it does not admit of a cure; but when it proceeds from a compreſſion of the nerves by redundant humours, theſe may in ſome meaſure be drained off, and the patient relieved. For this purpoſe, the body muſt be kept open with the laxative mercurial pills. If the patient be young and of a ſanguine habit, he may be bled. Cupping, with ſcarifications on the back part of the head, will likewiſe be of uſe. A running at the noſe may be promoted by volatile ſalts, ſtimulating powders, &c. But the moſt likely means for relieving the patient, are iſſues or bliſters kept open for a long time on the back part of the head, behind the ears, or on the neck. I have known theſe reſtore ſight, even after it had been for a conſiderable time loſt. Should theſe fail, recourſe muſt be had to a mercurial ſalivation*.

A *cataract* is an obſtruction of the pupil, by the interpoſition of ſome opaque ſubſtance, which either diminiſhes or totally extinguiſhes the ſight. It is generally an opacity of the chryſtalline humour. In a recent or beginning cataract, the ſame medicines are to be uſed as in the gutta ſerena; and they will ſometimes ſucceed. But when this does not happen, and the cataract becomes firm, it muſt be couched, or rather extracted. I have reſolved a recent cataract by giving the patient frequent purges with calomel, keeping a poultice of freſh hemlock conſtantly upon the eye, and a perpetual bliſter on the neck.

The *myopia*, or *ſhort-ſightedneſs*, and the *preſbyopia*, or *ſeeing only at too great a diſtance*, are diſorders which depend on the original ſtructure or figure of the eye, therefore admit of no cure. The inconveniencies ariſing from them may however be, in ſome meaſure, remedied by the help of proper glaſſes. The former requires the aid of a concave, and the latter of a convex glaſs.

A *ſtrabiſmus* or *ſquinting*, depends upon an irregular contraction of the muſcles of the eye from a ſpaſm, palſy, epilepſy, or an ill habit. Children often contract this diſorder by having their eyes unequally expoſed to the light. They may likewiſe acquire it by imitation from a ſquinting nurſe or play fellow, &c. As this diſorder can hardly be cured, parents ought to be careful to prevent it. Almoſt the only thing which can be done for it, is to contrive a maſk for the child to wear, which will only permit him to ſee in a ſtraight direction.

*Spots* or *ſpecks* on the eyes are generally the effect of inflammation, and often appear after the ſmall-pox, the meaſles, or violent ophthal-

* Electuary has been known to have a good effect in this diſeaſe, particularly when applied to parts near the eyes. (T. C.)

thias. They are very difficult to cure, and often occaſion total blindneſs. If the ſpecks are ſoft and thin, they may ſometimes be taken off by gentle cauſtics and diſcutients; as vitriol, the juice of celandine, &c. When theſe do not ſucceed, a ſurgical operation may be tried: the ſucceſs of which is always very doubtful.

The *blood-ſhot* eye may be occaſioned by a ſtroke, a fall, retching, vomiting, violent coughing, &c. I have frequently known it happen to children in the hooping-cough. It appears at firſt like a bit of ſcarlet, and is afterwards of a livid or blackiſh colour. This diſorder generally goes off without medicine. Should it prove obſtinate, the patient may be bled, and have his eyes bathed with rich led water, and the body ſhould be kept open by gentle purgatives.

The *watery* or *weeping eye* is generally occaſioned by a relaxation or weakneſs of the glandular parts of that organ. Theſe may be braced and ſtrengthened by bathing the eye with brandy and water, Hungary-water, roſe-water with white vitriol diſſolved in it, &c. Medicines which make a revulſion are likewiſe proper; as mild purgatives, perpetual bliſters on the neck, bathing the feet frequently in lukewarm water, &c.

When this diſeaſe proceeds from an obſtruction of the lachrymal duct, or natural paſſage of the tears, it is called a fiſtula lachrymalis, and can only be cured by a ſurgical operation.

## *Of the Ear.*

THE functions of the ear may be injured by wounds, ulcers, or any thing that hurts its fabric. The hearing may likewiſe be hurt by exceſſive noiſe; violent colds in the head; fevers, hard wax, or other ſubſtances ſticking in the cavity of the ear; too great a degree of moiſture or dryneſs of the ear. Deafneſs is very often the effect of old age, and is incident to moſt people in the decline of life. Sometimes it is owing to an original fault in the ſtructure or formation of the ear itſelf. When this is the caſe, it admits of no cure; and the perſon not only continues deaf, but generally likewiſe dumb for life*.

When deafneſs is the effect of wounds or ulcers of the ears, or of old age, it is not eaſily removed. When it proceeds from cold

* Though thoſe born deaf are generally ſuffered to continue dumb, and conſequently are, in a great meaſure, loſt to ſociety, yet nothing is more certain than that ſuch perſons may be taught not only to read and write, but alſo to ſpeak, and to underſtand what others ſay to them. Teaching the dumb to ſpeak will appear paradoxical to thoſe who do not conſider that the formation of ſounds is merely mechanical, and may be taught without the aſſiſtance of the ear. This is not only capa-

of the head, the patient muſt be careful to keep his head warm, eſpecially in the night; he ſhould likewiſe take ſome gentle purges, and keep his feet warm, and bathe them frequently in lukewarm water at bed-time. When deafneſs is the effect of a fever, it generally goes off after the patient recovers. If it proceeds from dry wax ſticking in the ears, it may be ſoftened by dropping oil into them*; afterwards they muſt be ſyringed with warm milk and water.

If deafneſs proceeds from dryneſs of the ears, which may be known by looking into them, half an ounce of the oil of ſweet almonds, and the ſame quantity of liquid apodeldoch, or tincture of aſafœtida, may be mixed together, and a few drops of it put into the ear every night at bed-time, ſtopping them afterwards with a little wool or cotton. Some, inſtead of oil, put a ſmall ſlice of the fat of bacon into each ear, which is ſaid to anſwer the purpoſe very well. When the ears abound with moiſture, it may be drained off by an iſſue or ſeton, which ſhould be made as near the affected parts as poſſible.

Some, for the cure of deafneſs, recommend the gall of an eel mixed with ſpirit of wine, to be dropped into the ear; others, equal parts of Hungary-water and ſpirit of lavender. Etmuller extols amber and muſk; and Brookes ſays, he has often known hardneſs of hearing cured, by putting a grain or two of muſk into the ear with cotton-wool. But theſe and other applications muſt be varied, according to the cauſe of the diſorder.

Though ſuch applications may ſometimes be of ſervice, yet they much oftener fail, and frequently they do hurt. Neither the eyes nor

ble of demonſtration, but is actually reduced to practice by Mr. Thomas Braidwood, of Edinburgh. This gentleman has, by the mere force of genius and application, brought the teaching of dumb perſons to ſuch a degree of perfection, that his ſcholars are generally more forward in their education than thoſe of the ſame age who enjoy all their faculties. They not only read and write with the utmoſt readineſs, but likewiſe ſpeak, and are capable of holding converſation with any perſon in the light. What a pity any of the human ſpecies ſhould remain in a ſtate of idiotiſm who are capable of being rendered uſeful and intelligent. We mention this not only from humanity to thoſe who have the misfortune to be born deaf, but alſo in juſtice to Mr. Braidwood, whoſe ſucceſs has far exceeded all former attempts this way; and indeed it exceeds imagination itſelf ſo far, that no perſon who has not ſeen and examined his pupils, can believe what they are capable of. As this gentleman, however willing, is only able to teach a few, and as the far greater part of thoſe who are born deaf cannot afford to attend him, it would be an act of great humanity, as well as of public utility, to erect an academy for their benefit.

* Good effects have been derived from wearing a conical plug in the ear, made of the ſtalk of a green cabbage, which will, after a while, give out its water, and be more conſtantly applied in diſſolving the wax, ſo as to prepare it for ſyringing with milk and water. (I. C.)

ears ought to be tampered with; they are tender organs, and require a very delicate touch. I chiefly recommend in deafneſs to keep the head warm. From whatever cauſe the diſorder proceeds this is always proper; and I have known more benefit from it alone, in the moſt obſtinate caſes of deafneſs, than from all the medicines I ever uſed.

## *The Taſte and Smell*

ARE not of ſo great importance to man in a ſtate of ſociety, as the ſight and hearing; yet, as the loſs of them is attended with inconveniency, they deſerve our notice. They are ſeldom to be reſtored when loſt; which ought to make us very attentive to their preſervation, by carefully avoiding whatever may injure them. As there is a very great affinity between the organs of taſting and ſmelling, whatever hurts the one generally affects the other.

Luxury is highly injurious to theſe organs. When the noſe and palate are frequently ſtimulated by fragrant and poignant diſhes, they ſoon loſe the power of diſtinguiſhing taſtes and odours with any degree of nicety. Man, in a ſtate of nature, may perhaps have theſe faculties as acute as any other animal.

The ſenſe of ſmelling may be diminiſhed or deſtroyed by diſeaſe; as, the moiſture, dryneſs, inflammation or ſuppuration of that membrane which lies the inſide of the noſe, commonly called the olfactory membrane; the compreſſion of the nerves which ſupply this membrane, or ſome falt in the brain itſelf at their origin. A defect, or too great a degree of ſolidity, of the ſmall ſpungy bones of the upper jaw, the caverns of the forehead, &c. may impair the ſenſe of ſmelling. It may be injured by a collection of fœtid matter in thoſe caverns, which keeps conſtantly exhaling from them. Few things are more hurtful to the ſenſe of ſmelling than quantities of ſnuff.

When the noſe abounds with moiſture, after gentle evacuations, ſuch things as tend to take off irritation, and coagulate the thin, ſharp ſerum, may be applied; as the oil of aniſe mixed with fine flour; camphire diſſolved in oil of almonds, &c. The vapours of amber, frankincenſe, gum-maſtic, and benjamin, may likewiſe be received into the noſe and mouth.

For moiſtening the mucus when it is too dry, ſome recommend ſnuff made of the leaves of marjoram, mixed with the oil of amber, marjoram and aniſeed; or a ſternutatory of calcined white vitriol; twelve grains of which may be mixed with two ounces of marjoram-water, and filtrated. The ſteam or vapour of vinegar upon hot iron

received up the noſtrils, is of uſe for ſoftening the mucus, opening obſtructions, &c.

If there is an ulcer in the noſe, it ought to be dreſſed with ſome emollient ointment, to which, if the pain be very great, a little laudanum may be added. If a venereal ulcer, it is not to be cured without mercury. In that caſe, the ſolution of the corroſive ſublimate in brandy, may be taken, as directed in the gutta ſerena. The ulcer ought likewiſe to be waſhed with it; and the fumes of cinnabar may be received up the noſtrils.

If there be reaſon to ſuſpect that the nerves which ſupply the organs of ſmelling, are inert, or want ſtimulating, volatile ſalts, ſtrong ſnuffs, and other things which occaſion ſneezing, may be applied to the noſe. The forehead may likewiſe be anointed with balſam of Peru, to which may be added a little of the oil of amber.

The taſte may be diminiſhed by cruſts, filth, mucus, aphthæ, pellicles, warts, &c. covering the tongue: it may be depraved by a fault of the ſaliva, which, being diſcharged into the mouth, gives the ſame ſenſation, as if the food, which the perſon takes, had really a bad taſte; or it may be entirely deſtroyed by injuries done to the nerves of the tongue and palate. Few things prove more hurtful either to the ſenſe of taſting or ſmelling than obſtinate colds, eſpecially thoſe which affect the head.

When the taſte is diminiſhed by filth, mucus, &c. the tongue ought to be ſcraped and frequently waſhed with a mixture of water, vinegar, and honey, or ſome other detergent. When the ſaliva is vitiated, which ſeldom happens unleſs in fevers or other diſeaſes, the curing of the diſorder is the cure of this ſymptom. To leave it in the mean time, if there be a bitter taſte, it may be taken away by vomits, purges, and other things which evacuate bile. What is called a nidorous taſte, ariſing from putrid humours, is corrected by the juice of citrons, oranges, and other acids. A ſalt taſte is cured by plentiful dilution with watery liquors. An acid taſte is deſtroyed by abſorbents, and alkaline ſalts, as powder of oyſter-ſhells, ſalt of worm-wood, &c.

When the ſenſibility of the nerves which ſupply the organs of taſte is diminiſhed, the chewing of horſe-radiſh, or other ſtimulating ſubſtances, will help to recover it.

## *Of the Touch.*

THE ſenſe of touching may be hurt by any thing that obſtructs the nervous influence, or prevents its being regularly conveyed to the organs of touching; as preſſure, extreme cold, &c. It may likewiſe be hurt by too great a degree of ſenſibility, when the nerve is not ſufficiently covered by the cuticle or ſcarf-ſkin, or where there

is too great a tenſion of it, or it is too delicate. Whatever diſorders the functions of the brain and nerves, hurts the ſenſe of touching. Hence it appears to proceed from the ſame general cauſes as palſy and apoplexy, and requires nearly the ſame method of treatment.

In a *ſtupor*, or defect of touching, which ariſes from an obſtruction of the cutaneous nerves, the patient muſt firſt be purged; afterwards ſuch medicines as excite the action of the nerves, or ſtimulate the ſyſtem, may be uſed. For this purpoſe, the ſpirits of hartſhorn, *ſal volatile oleoſum*, horſe-radiſh, &c. may be taken inwardly; the diſordered parts, at the ſame time, may be frequently rubbed with freſh nettles or ſpirit of *ſal ammoniac*. Bliſters and ſinapiſms applied to the parts will likewiſe be of uſe, as alſo warm bathing, eſpecially in the natural hot baths.

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## CHAPTER XLVII.

### *Of a Schirrus and Cancer.*

A SCHIRRUS is a hard indolent tumour ſeated in ſome of the glands; as the breaſts, the arm-pits, &c. If the tumour becomes large, unequal, of a livid, blackiſh, or leaden colour, and is attended with violent pain, it gets the name of an *occult cancer*. When the ſkin is broken, and a *ſanies* or ichorous matter, of an abominably fœtid ſmell is diſcharged from the ſore, it is called an open or ulcerated cancer. Perſons after the age of forty-five, particularly women, and thoſe who lead an indolent ſedentary life, are moſt ſubject to this diſeaſe.

CAUSES.——It is often owing to ſuppreſſed evacuations; hence it proves frequently fatal to women of a groſs habit, particularly old maids and widows, about the time when the menſtrual flux ceaſes. It may be occaſioned by exceſſive fear, grief, anger, religious melancholy, or any of the depreſſing paſſions. Hence, the unfortunate, the choleric, and thoſe perſons who devote themſelves to a religious life in convents or monaſteries, are often afflicted with it. It may be occaſioned by the long-continued uſe of food that is too hard of digeſtion, or of an acrid nature; by barrenneſs; celibacy; indolence; cold; blows; friction; preſſure, or the like. Women often ſuffer from the laſt of theſe, by means of their ſtays, which ſqueeze and compreſs their breaſts ſo as to occaſion great miſchief. Sometimes the diſeaſe is owing to an hereditary diſpoſition.

SYMPTOMS.——This diſorder ſeems often very trifling at the beginning. A hard tumour about the ſize of a hazle-nut, or perhaps ſmaller, is generally the firſt ſymptom. This will often continue for a long time without ſeeming to increaſe, or giving the patient great uneaſineſs; but if the conſtitution be hurt, or the tu-

mour irritated by preſſure, or improper treatment of any kind, it begins to extend itſelf towards the neighbouring parts, by puſhing out a kind of roots or limbs. It then gets the name of *cancer*, from a fancied reſemblance between the limbs and the claws of a crab. The colour of the ſkin begins to change, which is firſt red, afterwards purple, then bluiſh, livid, and at laſt black. The patient complains of heat, with a burning, gnawing, ſhooting pain. The tumour is very hard, rough, and unequal, with a protuberance, or riſing, in the middle; its ſize increaſes daily, and the neighbouring veins become thick, knotty, and of a blackiſh colour.

The ſkin at length gives way, and a thin, ſharp ichor begins to flow, which corrodes the neighbouring parts till it forms a large unſightly ulcer. More occult cancers ariſe, and communicate with the neighbouring glands. The pain and ſtench become intollerable; the appetite fails; the ſtrength is exhauſted by a continual hectic fever; at laſt, a violent hæmorrhage, or diſcharge of blood, from ſome part of the body, with faintings, or convulſion fits, generally put an end to life.

REGIMEN.——The diet ought to be light, but nouriſhing. All ſtrong liquors, and high-ſeaſoned or ſalted proviſions, are to be avoided. The patient may take as much exerciſe as he can eaſily bear; and ſhould uſe every method to divert thought, and amuſe his fancy. All kinds of external injury are carefully to be guarded againſt, particularly of the affected part, which ought to be defended from all preſſure, and even from the external air, by covering it with fur or ſoft flannel.

MEDICINE.——For this diſeaſe no certain remedy is known. Its progreſs may ſometimes be retarded, and ſome of its moſt diſagreeable ſymptoms mitigated, by proper applications. One misfortune attending the diſeaſe is, that the patient often conceals it too long. Were proper means uſed in due time, a cancer might often be cured; but after the diſorder has arrived at a certain height, it generally ſets all medicine at defiance.

When a ſchirrous tumour is firſt diſcovered, the patient ought to obſerve a proper regimen, and to take twice or thrice a-week, a doſe of common purging mercurial pills. Some blood may alſo be let, and the part affected may be gently rubbed twice a-day with a little of the mercurial ointment, and kept warm with fur or flannel. The food muſt be light, and an Engliſh pint of the decoction of woods or ſarſaparilla may be drank daily. I have ſometimes diſcuſſed hard tumours, which had the appearance of beginning cancers, by a courſe of this kind.

Should the tumour not yield to this treatment, but become larger and harder, it will be proper to extirpate it, either by the knife or cauſtic. Indeed, whenever this can be done with ſafety, the ſooner it is done the better. It can anſwer no purpoſe to extirpate a cancer after the conſtitution is ruined, or the whole maſs of humours corrupted by it. This is the common way, which makes the operation

ſo ſeldom ſucceed. Few people will ſubmit to the extirpation till death ſtares them in the face; whereas, if it were done early, life would not be endangered by the operation, and it would generally prove a radical cure.

When the cancer is ſo ſituated that it cannot be cut off, or if the patient will not ſubmit to the operation, ſuch medicines as will mitigate or relieve the moſt urgent ſymptoms may be uſed. Dr. Home ſays, that half a grain of the corroſive ſublimate of mercury, diſſolved in a proper quantity of brany, and taken night and morning, will often be of ſervice in cancers of the face and noſe. He likewiſe recommends an infuſion of the *ſolanum*, or night-ſhade, in cancers of the breaſts.

The medicine moſt in repute for this diſeaſe is hemlock. Dr. Stork, phyſician at Vienna, has of late recommended the extract of this plant as very efficacious in cancers of every kind. The Doctor ſays, he has given ſome hundred weights of it without ever hurting any body, and often with manifeſt advantage. He adviſes the patient, however, to begin with very ſmall doſes, as two or three grains, and to increaſe the doſe gradually till ſome good effect be perceived, and there to reſt without further increaſe. From two or three grains at firſt, he ſays he has increaſed the doſe to two, three, or four drachms a-day, and finds that ſuch doſes may be continued for ſeveral weeks without any bad conſequences.

The regimen which he recommends during the uſe of the medicine, is to avoid farinaceous ſubſtances not fermented, and too acrid aromatics. He ſays, good wine will not be hurtful to thoſe who are accuſtomed to it, nor a morderate uſe of acids; and adds, that the patient ſhould live in a pure, free air, and keep his mind as quiet and cheerful as poſſible.

He does not pretend to fix the time in which a cancer may be reſolved by the uſe of hemlock, but ſays, he has given it for above two years in large doſes without any apparent benefit; nevertheleſs, the patient has been cured by perſiſting in the uſe of it for half a-year longer. This is, at leaſt encouragement, to give it a fair trial. Though we are far from thinking hemlock merits thoſe extravagant encomiums which he has beſtowed upon it, yet, in a diſeaſe which has ſo long baffled the boaſted powers of medicine, ought always to be tried.

The powder of hemlock is by ſome preferred to the extract. They are both made of the freſh leaves, and may be uſed nearly in the ſame manner. Dr. Nicholſon of Berwich, ſays, he gradually increaſed the doſe of the powder from a few grains to half a drachm, and gave near four drachms of it in the day, with remarkably good effects. The hemlock may alſo be uſed externally either as a poultice or fomentation. The ſore may likewiſe be kept clean by injecting daily a ſtrong decoction of the tops and leaves into it.

Few things contribute more to the healing of foul ſordid ulcers of any kind than keeping them thoroughly clean. This ought never to

be neglected. The beſt application for this purpoſe ſeems to be the carrot poultice. The root of the common carrot may be grated, and moiſtened with as much water as will bring it to the conſiſtence of a poultice or cataplaſm. This muſt be applied to the ſore, and renewed twice a-day. It generally cleans the ſore, eaſes the pain, and takes away the diſagreeable ſmell, which are objects of no ſmall importance*.

Wort, or an infuſion of malt, has been recommended, not only as a proper drink, but as a powerful medicine, in this diſeaſe. It muſt be frequently made freſh, and the patient may take it at pleaſure. Two, three, or even four Engliſh pints of it may be drank every day for a conſiderable time. No benefit can be expected from any medicine in this diſeaſe, unleſs it be perſiſted in for a long time. It is of too obſtinate a nature to be ſoon removed; and, when it admits of a cure at all, it muſt be brought about by inducing an almoſt total change of the habit, which muſt always be a work of time. Setons or iſſues in the neighbourhood of the cancer have ſometimes good effects†.

When all other medicines fail, recourſe muſt be had to opium, as a kind of ſolace. This will not indeed cure the diſeaſe, but it will eaſe the patient's agony, and render life more tolerable while it continues.

To avoid this diſorder, people ought to uſe wholeſome food; to take ſufficient exerciſe in the open air; to be as eaſy and cheerful as poſſible; and carefully to guard againſt all blows, bruiſes, and every kind of preſſure upon the breaſts or other glandular parts‡.

* London Medical Eſſays.

† In a cancer which had ſet all medicines, and even ſurgery, at defiance, I lately ſaw remarkable effects from an obſtinate perſeverance in a courſe of antiſeptics. I ordered the deep ulcers to be waſhed to the bottom, by means of a ſyringe, twice or thrice a-day, either with an infuſion of the bark, or a decoction of carrot, and that the patient ſhould take, four or five times a-day, a glaſs of good wine, with half a drachm of the beſt powdered bark in it. The ſores, after being waſhed, were likewiſe ſprinkled with the ſame powder. When the patient began this courſe, her death was daily expected. She continued it for above two years, with manifeſt advantage; but being told by an eminent ſurgeon, that the bark would not cure a cancer, and that the ſores ought not to be waſhed, ſhe diſcontinued the practice, and died in a few weeks. This courſe was not expected to cure the cancer, but to prolong the patient's life, which it evidently did almoſt to a miracle.

‡ As hemlock is the principal medicine recommended in this diſeaſe, we would have given ſome directions for the gathering and preparing of that plant; but as its different preparations are now kept in the ſhops, it is much ſafer for people to get them there, with proper directions for uſing them.

# CHAPTER XLVIII.

## *Of Poiſons.*

EVERY perſon ought, in ſome meaſure, to be acquainted with the nature and cure of poiſons. They are generally taken unawares, and their effects are often ſo ſudden and violent, as not to admit of delay, or time to procure the aſſiſtance of phyſicians. Happily no great degree of medical knowledge is here neceſſary; the remedies for moſt poiſons being generally at hand, or eaſily obtained, and nothing but common prudence needful in the application of them.

The vulgar notion, that every poiſon is cured by ſome counter-poiſon, as a ſpecific, has done much hurt. People believe they can do nothing for the patient, unleſs they know the particular antidote to that kind of poiſon which he has taken. Whereas the cure of all poiſons taken into the ſtomach, without exception, depends chiefly on diſcharging them as ſoon as poſſible.

There is no caſe wherein the indications of cure are more obvious. Poiſon is ſeldom long in the ſtomach before it occaſions ſickneſs, with an inclination to vomit. This ſhews plainly what ought to be done. Indeed common ſenſe dictates to every one, that, if any thing has been taken into the ſtomach which endangers life, it ought immediately to be diſcharged. Were this duly regarded, the danger ariſing from poiſons might generally be avoided. The method of prevention is obvious, and the means are in the hands of every one.

We ſhall not take up the reader's time with a detail of the ridiculous notions which have prevailed among ignorant people in different ages with regard to poiſons; neither ſhall we mention the boaſted antidotes, which have been recommended either for preventing or obviating their effects; but ſhall point out the poiſons moſt common in this country, and the means of avoiding their dangerous conſequences.

Poiſons either belong to the mineral, the vegetable, or the animal kingdom.

Mineral poiſons are commonly of an acrid or corroſive quality; as arſenic, cobalt, the corroſive ſublimate of mercury, &c.

Thoſe of the vegetable kind are generally of a narcotic or ſtupefactive quality; as poppy, hemlock, henbane, berries of the deadly night-ſhade, &c.

Poiſonous animals communicate their infaction either by the bite or ſting. This poiſon is very different from the former, and only produces its effects when received into the body by a wound.

MINERAL POISONS.——Arſenic is the moſt common of this claſs; and, as the whole of them are pretty ſimilar both in their

effects and method of cure, what is ſaid with reſpect to it will be applicable to every other ſpecies of corroſive poiſon*.

When a perſon has taken arſenic, he ſoon perceives a burning heat, and a violent pricking pain in his ſtomach and bowels, with an intolerable thirſt, and an inclination to vomit. The tongue and throat feel rough and dry; and, if proper means be not ſoon adminiſtered, the patient is ſeized with great anxiety, hiccupping, faintings, and coldneſs of the extremities. To theſe ſucceed black vomits, fœtid ſtools, with a mortification of the ſtomach and inteſtines, which are the immediate forerunners of death.

On the firſt appearance of theſe ſymptoms, the patient ſhould drink large quantities of new milk and ſallad-oil till he vomits; or he may drink warm water mixed with oil. Fat broths are likewiſe proper, provided they can be got ready in time. Where no oil is to be had, freſh butter may be melted and mixed with the milk or water. Theſe thing are to be drank as long as the inclination to vomit continues. Some have drank eight or ten Engliſh quarts before the vomiting ceaſed; and it is never ſafe to leave off drinking while one particle of the poiſon remains in the ſtomach.

Theſe oily or fat ſubſtances not only provoke vomiting, but likewiſe blunt the acrimony of the poiſon, and prevent its wounding the bowels; but if they ſhould not make the perſon vomit, half a drachm, or two ſcruples of the powder of ipecacuanha muſt be given, or a few ſpoonfuls of the oxymel or vinegar of ſquills may be mixed with the water which he drinks. Vomiting may likewiſe be excited, by tickling the inſide of the throat with a feather. Should theſe methods, however, fail, half a drachm of white vitriol, or five or ſix grains of emetic tartar, muſt be adminiſtered.

If tormenting pains are felt in the lower belly, and there is reaſon to fear that the poiſon has got down to the inteſtines, clyſters of milk and oil muſt be very frequently thrown up; and the patient muſt drink emollient decoctions of barley, oat-meal, marſh-mallows, and ſuch-like. He muſt likewiſe take an infuſion of ſenna and manna, a ſolution of Glauber's ſalts, or ſome other purgative.

After the poiſon has been evacuated, the patient ought, for ſome time, to live upon ſuch things as are of a healing and cooling quality; to abſtain from fleſh and all ſtrong liquors, and to live upon milk, broth, gruel, light puddings, and other ſpoon-meats of eaſy digeſtion. His drink ſhould be barley-water, linſeed-tea, or infuſions of any of the mild mucilaginous vegetables.

VEGETABLE POISONS, beſides heat and pain of the ſtomach, commonly occaſion ſome degree of giddineſs, and often a kind of ſtupidity or folly. Perſons who have taken theſe poiſons muſt be treated in the ſame manner as for the mineral or corroſive.

* Corroſive ſublimate is an exception when this poiſon has been taken, the patient ought to drink large quantities of pot-aſh or ſalt of tartar, diſſolved in water to re-compoſe the poiſon and render it inactive. (I. C.)

Though the vegetable poiſons, when allowed to remain in the ſtomach, often prove fatal; yet the danger is generally over as ſoon as they are diſcharged. Not being of ſuch a cauſtic or corroſive nature, they are leſs apt to wound or inflame the bowels than mineral ſubſtances: no time ought to be loſt in having them diſcharged.

Opium, being frequently taken by miſtake, merits particular attention. It is uſed as a medicine both in a ſolid and liquid form, which latter commonly goes by the name of laudanum. It is, indeed, a valuable medicine when taken in proper quantity; but as an over-doſe proves a ſtrong poiſon, we ſhall point out its common effects, together with the method of cure.

An over-doſe of opium generally occaſions great drowſineſs, with ſtupor and other apoplectic ſymptoms. Sometimes the perſon has ſo great an inclination to ſleep, that it is almoſt impoſſible to keep him awake. Every method muſt, however, be tried for this purpoſe. He ſhould be toſſed, ſhaked, and moved about. Sharp bliſters ſhould be applied to his legs or arms, and ſtimulating medicines, as ſalts of hartſhorn, &c. held under his noſe. It will alſo be proper to let blood. At the ſame time, every method muſt be taken to make him dicharge the poiſon. This may be done in the manner directed above, viz. by the uſe of ſtrong vomits, drinking plenty of warm water with oil, &c.

Mead, beſides vomits in this caſe, recommends acid medicines with lixivial ſalts. He ſays, that he has often given ſalt of wormwood mixed with juice of lemon in repeated doſes with great ſucceſs.

If the body ſhould remain weak and languid after the poiſon has been diſcharged, nouriſhing diet and cordials will be proper; but when there is reaſon to fear that the ſtomach or bowels are inflamed, the greateſt circumſpection is neceſſary, both with regard to food and medicine.

## *Of the Bites of Poiſonous Animals.*

WE ſhall begin with the bite of a mad dog, as it is both the moſt common and dangerous animal-poiſon in this country.

The creatures naturally liable to contract this diſeaſe are, as far as we yet know, all of the dog kind, *viz.* foxes, dogs, and wolves.—Hence it is called the *rabies canina*, or dog madneſs. It ſo ſeldom happens that any perſon is bit by the firſt, that they ſcarce deſerve to be taken notice of. If ſuch a thing ſhould happen, the method of treatment is preciſely the ſame as for the bite of a mad dog.

The ſymptoms of madneſs in a dog are as follow: At firſt he looks dull, ſhews an averſion to food and company: he does not bark as uſual, but ſeems to murmur, is peeviſh, and apt to bite

ſtrangers: his ears and tail droop more than uſual, and he appears drowſy: afterwards he begins to loll out his tongue, and froth at the mouth, his eyes ſeeming heavy and watery: he now, if not confined, takes off, runs panting along with a kind of dejected air, and endeavours to bite every one he meets. Other dogs are ſaid to fly from him. Some think this a certain ſign of madneſs, ſuppoſing that they knew him by the ſmell; but it is not to be depended on. If he eſcapes being killed, he ſeldom runs above two or three days, till he dies exhauſted with heat, hunger, and fatigue.

This diſeaſe is moſt frequent after long, dry, hot ſeaſons; and ſuch dogs as live upon putrid, ſtinking carrion, without having enough of freſh-water, are moſt liable to it.

When any perſon has been bit by a dog, the ſtricteſt inquiry ought to be made, whether the animal was really mad. Many diſagreeable conſequences ariſe from neglecting to aſcertain this point. Some people have lived in continual anxiety for many years, becauſe they had been bit by a dog which they believed to be mad; but as he had been killed on the ſpot, it was impoſſible to aſcertain the fact. This ſhould induce us, inſtead of killing a dog the moment he has bit any perſon, to do all in our power to keep him alive, at leaſt till we can be certain whether he be mad or not.

Many circumſtances may contribute to make people imagine a dog mad. He looſes his maſter, runs about in queſt of him, is ſet upon by other dogs, and perhaps by men. The creature thus frightened, beat and abuſed, looks wild, and lolls out his tongue as he runs along. Immediately a crowd is after him; while he, finding himſelf cloſely purſued, and taking every one he meets for an enemy, naturally attempts to bite him in ſelf-defence. He ſoon gets knocked on the head, and it paſſes currently that he was mad, as it is then impoſſible to prove the contrary.

This being the true hiſtory of, by far, the greater part of thoſe dogs which paſs for mad, is it any wonder that numberleſs whimſical medicines have been extolled for preventing the effects of their bite? This readily accounts for the great variety of infallible remedies for the bite of a mad dog, which are to be met with in almoſt every family. Though not one in a thouſand has any claim to merit, yet they are all ſupported by numberleſs vouchers. No wonder that imaginary diſeaſes ſhould be cured by imaginary remedies. In this way, credulous people firſt impoſe upon themſelves, and then deceive others. The ſame medicine which was ſuppoſed to prevent the effects of the bite, when the dog was not mad, is recommended to a perſon who has had the misfortune to be bit by a dog that was really mad. He takes it, truſts to it, and is undone.

To theſe miſtakes we muſt impute the frequent ill ſucceſs of the medicines, uſed for preventing the effects of the bite of a mad dog. It is not owing ſo much to a defect in medicine, as to wrong applications. If proper medicines were adminiſtered immediately after the bite is received, and continued for a ſufficient length of time, we ſhould not loſe one in a thouſand of thoſe bit by a mad dog.

This poiſon is generally communicated by a wound, which, nevertheleſs, heals as ſoon as a common wound: but afterwards it begins to feel painful, and as the pain ſpreads towards the neighbouring parts, the perſon becomes heavy and liſtleſs. His ſleep is unquiet, with frightful dreams; he ſighs, looks dull, and loves ſolitude. Theſe are the forerunners, or rather the firſt ſymptoms of that dreadful diſeaſe, occaſioned by the bite of a mad dog. But as we do not propoſe to treat fully of the diſeaſe itſelf, but to point out the method of preventing it, we ſhall not take up time in ſhowing its progreſs from the firſt invaſion to its commonly fatal end.

The common notion, that this poiſon may lie in the body for many years, and afterwards prove fatal, is both hurtful and ridiculous. It muſt render perſons bit, very unhappy, and can have no good effects. If the perſon takes proper medicines for forty days after the time of his being bit, and feels no ſymptoms of the diſeaſe, there is reaſon to believe him out of danger.

The medicines recommended for preventing the effects of the bite of a mad dog, are chiefly ſuch as promote the different ſecretions, and antiſpaſmodics.

Dr. Mead recommends a preventative medicine, which he ſays he never knew fail, though in the ſpace of thirty years he had uſed it a thouſand times. It is as follows:

"Take aſh-coloured ground liver-wort, cleaned, dried, and powdered, half an ounce; of black pepper powdered, a quarter of an ounce. Mix theſe well together, and divide the powder into four doſes; one of which muſt be taken every morning faſting, for four mornings ſucceſſively, in half an Engliſh pint of cows milk warm.

"After theſe four doſes are taken, the patient muſt go into the cold bath, or a cold ſpring or river, every morning faſting, for a month; he muſt be dipped all over, but not ſtay in (with his head above water) longer than half a minute, if the water be very cold. After this he muſt go in three times a-week for a fortnight longer.

"The perſon muſt be bled before he begins to uſe the medicine*."

We ſhall next mention the famous Eaſt-India ſpecific, as it is called. This medicine is compoſed of cinnabar and muſk. It is eſteemed a great antiſpaſmodic; and, by many, extolled as an infallible remedy for preventing the effects of the bite of a mad dog.

"Take native and factitious cinnabar, of each twenty-four grains, muſk ſixteen grains. Let theſe be made into a fine powder, and taken in a glaſs of arrack or brandy."

This ſingle doſe is ſaid to ſecure the perſon for thirty days, at the end of which it muſt be repeated; but if he has any ſymptoms of the diſeaſe, it muſt be repeated in three hours.

* Though we give this preſcription on the credit of Dr. Mead, yet we would not adviſe any perſon, who has reaſon to believe that he has been bit by a dog which was really mad, to truſt to it alone. Mead was an able phyſician, but he ſeems to have been no great philoſopher, and was ſometimes the dupe of his own credulity.

The following is likewiſe reckoned a good antiſpaſmodic medicine:

"Take of Virginian ſnake-root in powder, half a drachm, gum aſafœtida twelve grains, gum camphire ſeven grains; make theſe into a bolus with a little ſyrup of ſaffron."

Camphire may alſo be given in the following manner:

"Take purified nitre, half an ounce, Virginian ſnake-root in powder, two drachms, camphire, one drachm; rub them together in a mortar, and divide the whole into ten doſes."

Mercury is likewiſe recommended as of great efficacy, both in the prevention and cure of this kind of madneſs. When uſed as a preventative, it will be ſufficient to rub daily a drachm of the ointment into the parts about the wound.

Vinegar is likewiſe of conſiderable ſervice, and ſhould be taken freely, either in the patient's food or drink.

Theſe are the principal medicines recommended for preventing the effects of the bite of a mad dog. We would not adviſe people to truſt to any one of them; but from a proper combination of their different powers, there is the greateſt reaſon to hope for ſucceſs.

The great error in the uſe of theſe medicines lies, in not taking them for a ſufficient length of time. They are uſed more like charms, than medicines intended to produce any change in the body. To this, and not to the inſufficiency of the medicines, we muſt impute their frequent want of ſucceſs.

Dr. Mead ſays, that the virtue of his medicine conſiſts in promoting urine. But how a poiſon ſhould be expelled by urine, with only three or four doſes of any medicine, however powerful, it is not eaſy to conceive. More time is certainly neceſſary, even though the medicine were more powerful than that which the Doctor preſcribes.

The Eaſt-India ſpecific is ſtill more exceptionable on this account.

As theſe and moſt other medicines, taken ſingly, have frequently been found to fail, we ſhall recommend the following courſe:

If a perſon be bit in a fleſhy part, where there is no hazard of hurting any large blood-veſſel, the parts adjacent to the wound may be immediately cut away*. But if this be not done ſoon after the bite has been received, it will be better to omit it.

The wound may be waſhed with ſalt and water, or a pickle made of vinegar and ſalt, and afterwards dreſſed twice a-day with yellow baſilicon, mixed with the red precipitate of mercury.

The patient ſhould begin to uſe either Dr. Mead's medicine, or ſome of the others mentioned above. If he takes Mead's medicine, he may uſe it as the Doctor directs for four days ſucceſſively. Let him then omit it for two or three days, and again repeat the ſame number of doſes as before.

During this courſe, he muſt rub into the parts about the wound

* Cauſtic has been recommended to be applied to the part, but this ſhould never be employed when the knife can be uſed, for it is liable to fruſtrate the intention by not deſtroying the whole of the wounded part.

daily, one drachm of the mercurial ointment. This may be done for ten or twelve days at leaſt.

When this courſe is over, he may take a purge or two, and wait a few days till the effect of the mercury be gone off. He muſt then begin to uſe the cold bath, into which he may go every morning for five or ſix weeks. If he ſhould feel cold and chilly for a long time after coming out of the cold bath, it will be better to uſe a tepid one, or to have the water a little warmed.

In the mean time, we would adviſe him not to leave off all internal medicines, but to take either one of the boluſes of ſnake-root, aſafœtida, and camphire; or one of the powders of nitre, camphire, and ſnake-root, twice a-day. Theſe may be uſed during the whole time he is bathing.

During the uſe of the mercurial ointment, the patient muſt keep within doors, and take nothing cold.

A proper regimen muſt be obſerved throughout the whole courſe. The patient ſhould abſtain from fleſh, and all ſalted and high-ſeaſoned proviſions. He muſt avoid ſtrong liquors, and live moſtly upon a light and rather ſpare diet. His mind ſhould be kept as eaſy and cheerful as poſſible, and all exceſſive heat and violent paſſions avoided with the utmoſt care.

I have never ſeen this courſe of medicine, with proper regimen, fail to prevent the hydrophobia, and cannot help again obſerving, that the want of ſucceſs muſt generally be owing either to the application of improper medicines, or not uſing proper ones for a ſufficient length of time.

Mankind are extremely fond of every thing that promiſes a ſudden or miraculous cure. By truſting to theſe, they often loſe their lives, when a regular courſe of medicine would have rendered them abſolutely ſafe. This holds remarkably in the preſent caſe. Numbers of people, for example, believe if they or their cattle be once dipped in the ſea, it is ſufficient; as if the ſalt water were a charm againſt the effects of the bite. This, and ſuch like whims, have proved fatal to many.

It is a common notion, if a perſon be bit by a dog which is not mad, that, if he ſhould go mad afterwards, the perſon would be affected with the diſorder at the ſame time; but this notion is too ridiculous to deſerve a ſerious conſideration. It is a good rule, however, to avoid dogs as much as poſſible, as the diſeaſe is often upon them for ſome time before its violent ſymptoms appear. The hydrophobia has been occaſioned by the bite of a dog which ſhewed no other ſymptoms of the diſeaſe but liſtleſſneſs and a ſullen diſpoſition.

Though we do not mean to treat fully of the cure of the hydrophobia, yet we are far from reckoning it incurable. The notion that this diſeaſe could not be cured, has been productive of horrid conſequences. It was uſual either to abandon the unhappy perſons, as ſoon as they were ſeized with the diſeaſe, to their fate, to bleed them to death, or to ſuffocate them between matraſſes or feather beds, &c.

This conduct certainly deserved the severest punishment! We hope, for the honour of human nature, it will never again be heard of.

I have never had an opportunity of treating this disease, and therefore can say nothing of it from my own experience; but Dr. Tissot says, it may be cured in the following manner:

1. The patient must be bled to a considerable quantity; and this may be repeated twice, thrice, or even a fourth time, if circumstances require it.

2. The patient should be put, if possible, into a warm bath; and this should be used twice a-day.

3. He should every day receive two, or even three emollient clysters.

4. The wound, and the parts adjoining to it, should be rubbed with the mercurial ointment twice a-day.

5. The whole limb which contains the wound should be rubbed with oil, and be wrapped up in an oily flannel.

6. Every three hours a dose of Cob's powder should be taken in a cup of the infusion of lime-tree and elder-flowers. This powder is made, by rubbing together in a mortar, to a very fine powder, of native and factitious cinnabar, each twenty-four grains; of musk, sixteen grains*.

7. The following bolus is to be given every night, and to be repeated in the morning, if the patient is not easy, washing it down with the infusion mentioned above: Take one drachm of Virginian snake-root in powder; of camphire and asafœtida, ten grains each; of opium, one grain; and, with a sufficient quantity of conserve, or rob of elder, make a bolus.

8. If there be a great nausea at the stomach, with a bitterness in the mouth, thirty-five or forty grains of ipecacuanha, in powder, may be taken for a vomit.

9. The patient's food, if he takes any, must be light; as panado, soups made of farinaceous or mealy vegetables, &c.

10. If the patient should long continue weak, and subject to terrors, he may take half a drachm of the Peruvian bark thrice a-day.

The next poisonous animal which we shall mention is the VIPER. The grease of this animal rubbed into the wound is said to cure the bite. Though that is all the viper-catchers generally do when bit, we should not think it sufficient for the bite of an enraged viper. It would surely be more safe to have the wound well sucked†, and af-

* The Ormskirk medicine, as it is called, seems to me to consist chiefly of cinnabar. Though it is said to be infallible, as a preventative; yet I would not advise any one to trust to it alone. Indeed, it is ordered to be taken in a manner which gives it more the appearance of a charm than of a medicine. Surely, if a medicine is to produce any change in the body, it must be taken for some considerable time, and in sufficient quantity.

† The practice of sucking out poisons is very ancient; and indeed nothing can be more rational. Where the bite cannot be cut out, this is the most likely way for extracting the poison. There can be no danger in performing this office, as the poison does no harm, unless it be

terwards rubbed with warm ſallad-oil. A poultice of bread and milk, ſoftened with ſallad-oil, ſhould likewiſe be applied to the wound; and the patient ought to drink freely of vinegar-whey, or water-gruel with vinegar in it, to make him ſweat. Vinegar is one of the beſt medicines which can be uſed in any kind of poiſon, and ought to be taken very liberally. If the patient be ſick, he may take a vomit. This courſe will be ſufficient to cure the bite of any of the poiſonous animals of this country.

With regard to poiſonous inſects, as the bee, the waſp, the hornet, &c. their ſtings are ſeldom attended with danger, unleſs when a perſon happens to be ſtung by a great number of them at the ſame time; in which caſe ſomething ſhould be done to abate the inflammation and ſwelling. Some, for this purpoſe, apply honey, others lay pounded parſley to the part. A mixture of vinegar and Venice treacle is likewiſe recommended; but I have always found rubbing the part with warm ſallad-oil ſucceed very well. Indeed, when the ſtings are ſo numerous as to endanger the patient's life, which is ſometimes the caſe, he muſt not only have oily poultices applied to the part, but ſhould likewiſe be bled, and take ſome cooling medicines, as nitre, or cream of tartar, and ſhould drink plentifully of diluting liquors.

It is the happineſs of this iſland to have very few poiſonous animals, and thoſe which we have are by no means of the moſt virulent kind. Nine-tenths of the effects attributed to poiſon or venom in this country, are really other diſeaſes, and proceed from quite different cauſes.

We cannot, however, make the ſame obſervation with regard to poiſonous vegetables. Theſe abound every where, and prove often fatal to the ignorant and unwary. This, indeed, is chiefly owing to careleſſneſs. Children ought early to be cautioned againſt eating any kind of fruit, roots, or berries, which they do not know, and all poiſonous plants to which they can have acceſs, ought, as far as poſſible, to be deſtroyed. This would not be ſo difficult a taſk as ſome people imagine.

## CHAPTER XLIX.

### *Of the Venereal Diſeaſe.*

IT is unfortunate for the unhappy perſons who contract this diſeaſe, that it lies under a ſort of diſgrace. This renders diſguiſe neceſſary, and makes the patient either conceal his diſorder altoge-

taken into the body by a wound. The perſon who ſucks the wound ought however to waſh his mouth frequently with ſallad-oil, which will ſecure him from even the leaſt inconveniency. The Pſylli in Africa, and the Marſi in Italy, were famed for curing the bites of poiſonous animals by ſucking the wound; and we are told that the Indians in North-America practiſe the ſame at this day.

ther, or apply to thoſe who promiſe a ſudden and ſecret cure; but who in fact only remove the ſymptoms for a time, while they fix the diſeaſe deeper in the habit. By this means, a ſlight infection, which might have been eaſily removed, is often converted into an obſtinate and ſometimes incurable malady.

Another unfavourable circumſtance attending this diſeaſe is, that it aſſumes a variety of different ſhapes, and may with more propriety be called an aſſemblage of diſeaſes than a ſingle one. No two diſeaſes can require a more different method of treatment than this does in its different ſtages. Hence, the folly and danger of truſting to any particular noſtrum for the cure of it. Such noſtrums are however generally adminiſtered in the ſame manner to all who apply for them, without the leaſt regard to the ſtate of the diſeaſe, the conſtitution of the patient, the degree of infection, and a thouſand other circumſtances of the utmoſt importance.

The venereal diſeaſe may be communicated to the innocent as well as the guilty. Infants, nurſes, midwives, and married women whoſe huſbands lead diſſolute lives, are often affected with it, and frequently loſe their lives by not being aware of their danger in due time. The condition of ſuch perſons will certainly plead our excuſe, if any excuſe be neceſſary, for endeavouring to point out the ſymptoms and cure of this too common diſeaſe.

To enumerate all its different ſymptoms, and to trace the diſeaſe minutely through its various ſtages, would require a much larger ſpace than falls to this part of my ſubject. I therefore confine my obſervations chiefly to circumſtances of importance, omitting ſuch as are trifling, or which occur but ſeldom.

## *The Virulent Gonorrhœa*

IS an involuntary diſcharge of infectious matter from the parts of generation in either ſex. It generally makes its appearance within eight or ten days after the infection has been received: ſometimes in two or three days, and at other times not for four or five weeks. Previous to the diſcharge, the patient feels an itching, with a ſmall degree of pain in the genitals. Afterwards a thin glary matter begins to diſtil from the urinary paſſage, which ſtains the linen, and occaſions a ſmall degree of titillation, particularly in the time of making water; this ariſes at length to a degree of heat and pain, which are chiefly perceived about the extremity of the urinary paſſage, where a ſlight degree of redneſs and inflammation likewiſe begin to appear.

As the diſorder advances, the pain, heat of urine, and running increaſe, while freſh ſymptoms daily enſue. In men, the erections become painful and involuntary, and are more frequent and laſting

than when natural. This ſymptom is moſt troubleſome when the patient is warm in bed. The pain which was at firſt only perceived towards the extremity, now begins to reach all up the urinary paſſage, and is moſt intenſe juſt after the patient has done making water. The running gradually grows yellow, and at length puts on the appearance of matter.

When the diſorder has arrived at its height, all the ſymptoms are more intenſe; the heat of urine is ſo great, that the patient dreads the making water; and, though he feels a conſtant inclination this way, yet it is rendered with the greateſt difficulty, and often only by drops: the involuntary erections now become extremely painful and frequent; there is alſo a pain, heat, and ſenſe of fulneſs about the ſeat, and the running is plentiful and ſharp, of a brown, greeniſh, and ſometimes of a bloody colour.

By a proper treatment, the violence of the ſymptoms gradually abate; the heat of urine goes off; the involuntary and painful erections, and the heat and pain about the ſeat, become eaſier; the running alſo gradually decreaſes, grows whiter and thicker, till at laſt it entirely diſappears.

By attending to theſe ſymptoms, the gonorrhœa may be generally diſtinguiſhed from any other diſeaſe. There are however ſome few diſorders for which it may be miſtaken, as an ulcer in the kidnies or bladder, the fluor albus, or whites in women, &c. But in the former of theſe, the matter comes away only with the urine, or when the ſphincter of the bladder is open; whereas, in a gonorrhœa, the diſcharge is conſtant. The latter muſt be known chiefly from its effects, as pain, communicating the infection, &c.

REGIMEN.——When a perſon ſuſpects that he has caught the venereal infection, he ought moſt ſtrictly to obſerve a cooling regimen, to avoid every thing of a heating nature, as wines, ſpirituous liquors, rich ſauces, ſpiced, ſalted, high-ſeaſoned and ſmoke-dried proviſions, aromatic and ſtimulating vegetables, as onions, garlic, ſhallot, nutmeg, muſtard, cinnamon, mace, ginger, and ſuch like. His food ought chiefly to conſiſt of mild vegetables, milk, broths, light puddings, panado, gruels, &c. His drink may be barley-water, milk and water, decoctions of marſh-mallows and liquorice, linſeed tea, or clear whey. Of theſe, he ought to drink plentifully. Violent exerciſe of all kinds, eſpecially riding on horſeback, and venereal pleaſures, are to be avoided. The patient muſt beware of cold, and when the inflammation is violent, he ought to keep his bed.

MEDICINE.——A virulent gonorrhœa cannot always be cured ſpeedily and effectually at the ſame time. The patient ought not to expect, nor the phyſician to promiſe it. It will often continue for two or three weeks, and ſometimes for five or ſix, even where the treatment has been very proper.

Sometimes a ſlight infection may be carried off in a few days, by bathing the parts in warm milk and water, and injecting frequent-

ly up the urethra a little ſweet oil or linſeed-tea about the warmth of new milk. Should theſe not ſucceed in carrying off the infection, they will at leaſt have a tendency to leſſen its virulence.

To effect a cure, however, aſtringent injections will generally be found neceſſary. Theſe may be various ways prepared, but I think thoſe made with the white vitriol are both moſt ſafe and efficacious. They can be made ſtronger or weaker as circumſtances may require; but it is beſt to begin with the more gentle, and increaſe their power if neceſſary. I generally order a drachm of white vitriol to be diſſolved in eight or nine ounces of common or roſe-water, and an ordinary ſyringe full of it to be thrown up three or four times a-day. If this quantity does not perform a cure, it may be repeated, and the doſe increaſed*.

Whether injections be uſed or not, cooling purges are always proper in the gonorrhœa. They ought not however to be of the ſtrong or draſtic kind. Whatever raiſes a violent commotion in the body increaſes the danger, and tends to drive the diſeaſe deeper into the habit. Procuring two or three ſtools every ſecond or third day for the firſt fortnight, and the ſame number every fourth or fifth day for the ſecond, will generally be ſufficient to remove the inflammatory ſymptoms, to diminiſh the running, and to change the colour and conſiſtence of the matter, which gradually becomes more white and ropy as the virulence abates†.

* Although it is now very common to cure the gonorrhœa by aſtringent injections, there are ſtill many practitioners who do not approve this mode of practice. I can, from much experience, aſſert, that it is both the moſt eaſy and efficacious method of cure; any bad conſequences ariſing from it muſt be owing to the ignorance or miſconduct of the practitioner himſelf, and not to the remedy. Many, for example, uſe ſtrong preparations of lead, all of which are dangerous when applied to the internal ſurfaces of the body; others uſe eſcharotics, which inflame and injure the parts. I have known a gonorrhœa actually cured by an injection made of green-tea, and would always recommend gentle methods where they will ſucceed.

† If the patient can ſwallow a ſolution of ſalts and manna, he may take ſix drachms, or, if his conſtitution requires it, an ounce of the former, with half an ounce of the latter. Theſe may be diſſolved in an Engliſh pint of boiling water, whey, or thin water-gruel, and taken early in the morning.

If an infuſion of ſenna and tamarinds be more agreeable, two drachms of the former, and an ounce of the latter, may be infuſed all night in an Engliſh pint of boiling water. The infuſion may be ſtrained next morning, and half an ounce of Glauber's ſalts diſſolved in it. A tea-cupful of this infuſion may be taken every half hour till it operates.

Should the patient prefer an electuary, the following will be found to anſwer very well. Take of the lenitive electuary four ounces, cream of tartar two ounces, jalap in powder two drachms, rhubarb one drachm, and as much of the ſyrup of pale roſes as will ſerve to make up the whole into a ſoft electuary. Two or three tea-ſpoonfuls of this may be taken over-night, and about the ſame quantity next morning, every day that the patient chooſes to take a purge.

The doſes of the above medicines may be increaſed or diminiſhed ac-

When the inflammatory fymptoms run high, bleeding is always neceſſary at the beginning. This operation, as in other topical inflammations, muſt be repeated according to the ſtrength and conſtitution of the patient, and the vehemence and urgency of the ſymptoms.

Medicines which promote the ſecretion of urine, are proper in this ſtage of the diſorder. For this purpoſe, two ounces of pounded arabic may be mixed with half an ounce of cream tartar, and divided into twenty-four doſes, one of which may be taken every morning and evening in a cup of the patient's drink. I have generally found this anſwer extremely well, both as to the diuretic, and for keeping the body gently open.

When the pain and inflammation are ſeated high towards the neck of the bladder, it will be proper frequently to throw up an emollient clyſter, which, beſides the benefit of procuring ſtools, will ſerve as a fomentation to the inflamed parts.

Soft poultices, when they can conveniently be applied to the parts, are of great ſervice. They may be made of the flour of linſeed, or of wheat bread and milk, ſoftened with freſh butter or ſweet oil. When poultices cannot be conveniently uſed, cloths wrung out of warm water, or bladders filled with warm milk and water, may be applied. I have often known the moſt excruciating pains, during the inflammatory ſtate of the gonorrhœa, relieved by one or other of theſe applications.

Few things tend more to keep off inflammation in the ſpermatic veſſels, than a proper truſs for the ſcrotum. It ought to be ſo contrived as to ſupport the teſticles, and ſhould be worn from the firſt appearance of the diſeaſe till it has ceaſed ſome weeks.

The above treatment will ſometimes remove the gonorrhœa ſo quickly, that the perſon will be in doubt whether he really laboured under that diſeaſe. This, however, is too favourable a turn to be often expected, and ought never to be adopted.

When the above treatment has removed the heat of urine, and ſoreneſs of the genital parts; when the quantity of running is conſiderably leſſened, without any pain or ſwelling in the groin or teſticle ſupervening; when the patient is free from involuntary erections; and laſtly, when the running becomes pale, whitiſh, thick, void of ill ſmell, and tenacious or ropy; when all or moſt of theſe ſymptoms appear, the gonorrhœa is arrived at its laſt ſtage, and we may gradually proceed to treat it as a gleet with aſtringent medicines.

cording as the patient finds it neceſſary. We have ordered the ſalts to be diſſolved in a large quantity of water, becauſe it renders their operation more mild.

## *Of Gleets.*

A GONORRHŒA frequently repeated, or improperly treated, often ends in a gleet, which may either proceed from relaxation, or from ſome remains of the diſeaſe. It is of the greateſt importance in the cure, to know from which cauſe the gleet proceeds. When the diſcharge proves very obſtinate, and receives little or no check, from aſtringent medicines, there is ground to ſuſpect that it is owing to the latter; but if the drain is inconſtant, and is chiefly obſervable when the patient is ſtimulated by laſcivious ideas, or upon ſtraining to go to ſtool, we may reaſonably conclude that it is chiefly owing to the former.

In the cure of a gleet, proceeding from relaxation, the principal deſign is to brace, and reſtore a proper degree of tenſion to the debilitated and relaxed veſſels. For this purpoſe, beſides the medicines recommended in the gonorrhœa, the patient may have recourſe to ſtronger and powerful aſtringents, as the Peruvian bark*, allum, vitriol, galls, tincture of gum kino, &c. The injections may be rendered more aſtringent by the addition of a few grains of allum, or increaſing the quantity of vitriol as far as the parts are able to bear it.

The laſt remedy which we ſhall mention in this caſe is the cold bath, than which, there is not perhaps a more powerful bracer in the whole compaſs of medicine. It ought never to be omitted in this ſpecies of gleet, unleſs there be ſomething in the conſtitution of the patient which renders the uſe of it unſafe. The chief objections to the uſe of the cold bath are, a full habit, and an unſound ſtate of the viſcera. The danger from the former may always be leſſened, if not removed, by purging and bleeding; but the latter is an inſurmountable obſtacle, as the preſſure of the water, and the ſudden contraction of the external veſſels, by throwing the blood with too much force upon the internal parts, are apt to occaſion ruptures of the veſſels, or a flux of humours upon the diſeaſed organs. But where no objection of this kind prevails, the patient ought to plunge over head in water every morning faſting, for three or four weeks together. He ſhould not ſtay long in the water, and ſhould have his ſkin dried as ſoon as he comes out.

The regimen proper in this caſe is the ſame as in the laſt ſtage of the gonorrhœa: the diet muſt be drying and aſtringent, and the drink, Spa, Pyrmont, or Briſtol waters, with which a little claret or red wine may ſometimes be mixed. Any perſon may now afford

* The Peruvian bark may be combined with other aſtringents, and prepared in the following manner:

Take of Peruvian bark bruiſed, ſix drachms, of freſh galls bruiſed, two drachms; boil them in a pound and an half of water to a pound: to the ſtrained liquor add three ounces of the ſimple tincture of the bark. A ſmall tea-cupful of this may be taken three times a-day, adding to each cup fifteen or twenty drops of the acid elixir of vitriol.

to drink theſe waters, as they can be every where prepared at almoſt no expence, by a mixture of common chalk and oil of vitriol.

When the gleet does not in the ſmalleſt degree yield to theſe medicines, there is reaſon to ſuſpect that it proceeds from ulcers*. In this caſe, recourſe muſt be had to mercury, and ſuch medicines as tend to correct any predominant acrimony with which the juices may be affected, as the decoction of China, ſaſaparilla, ſaſſafras, or the like.

Mr. Fordyce ſays, he has ſeen many obſtinate gleets of two, three, or four years ſtanding, effectually cured by a mercurial inunction, when almoſt every other medicine has been tried in vain. Dr. Chapman ſeems to be of the ſame opinion; but ſays, he has always found the mercury ſucceed beſt in this caſe when joined with terebinthinate and other agglutinating medicines. For which reaſon, he recommends pills made of calomel and Venice turpentine†; and deſires that their uſe may be accompanied with a decoction of guaiacum or ſarſaparilla.

For the cure of ulcers in the urinary paſſage, ſuppurating candles or bougies are prepared various ways, and are generally to be bought ready made. It is needleſs to ſpend time in enumerating the different ingredients of which they are compoſed, or teaching the manner of preparing them. Before a bougie be introduced into the urethra, it ſhould be ſmeared all over with ſweet oil, to prevent it from ſtimulating too ſuddenly; it may be ſuffered to continue in from one to ſeven or eight hours, according as the patient can bear it. Obſtinate ulcers are not only often healed, but tumours and excreſcences in the urinary paſſages taken away, and an obſtruction of urine removed by means of bougies.

## *Of the Swelled Teſticle.*

THE ſwelled teſticle may proceed from infection lately contracted, and may happen both in the firſt and ſecond ſtages of a gonorrhœa; particularly when the running is unſeaſonably checked, by

* This conjecture ſhould be well-founded, as the ſame effect may be produced from different cauſes, ſuch as a ſtricture in the urethra or ſimple relaxation of the excreting veſſels of that canal; in both of theſe caſes, mercury would be improper, particularly in the former, which can only be removed by a diligent uſe of bougies. (I. C.)

† Take Venice turpentine, boiled to a ſufficient degree of hardneſs, half an ounce, calomel, half a drachm. Let theſe be mixed and formed into ſixty pills, of which five or ſix may be taken night and morning. If, during the uſe of theſe pills, the mouth ſhould grow ſore, or the breath become offenſive, they muſt be diſcontinued till theſe ſymptoms diſappear.

cold, hard drinking, ſtrong draſtic purges, violent exerciſe, the too early uſe of aſtringent medicines, or the like.

In the inflammatory ſtage, bleeding is neceſſary, which muſt be repeated according to the urgency of the ſymptoms*. The food muſt be light, and the drink diluting. High-ſeaſoned food, fleſh, wines, and every thing of a heating nature, are to be avoided. Fomentations are of ſingular ſervice. Poultices of bread and milk, ſoftened with freſh butter or oil, are very proper, and ought conſtantly to be applied when the patient is in bed; when he is up, the teſticle ſhould be kept warm, and ſupported by a bag or truſs, which may eaſily be contrived in ſuch a manner as to prevent the weight of the teſticle from having any effect.

If it ſhould be found impracticable to clear the teſticle by the cooling regimen now pointed out, and extended according to circumſtances, it will be neceſſary to lead the patient through ſuch a complete antivenereal courſe, as ſhall enſure him againſt any future uneaſineſs. For this purpoſe, beſides rubbing the mercurial ointment on the part, if free from pain, or on the thighs, as directed in the gonorrhœa, the patient muſt be confined to bed, if neceſſary, for five or ſix weeks, ſuſpending the teſticle all the while with a bag or truſs, and plying him inwardly with ſtrong decoctions of ſarſaparilla.

When theſe means do not ſucceed, and there is reaſon to ſuſpect a ſcrophulous or cancerous habit, either of which may ſupport a ſchirrhous induration, after the venereal poiſon is corrected, the parts ſhould be fomented daily with a decoction of hemlock, the bruiſed leaves of which may likewiſe be added to the poultice, and the extract at the ſame time taken inwardly†. This practice is ſtrongly recommended by Doctor Stork in ſchirrous and cancerous caſes; and Mr. Fordyce aſſures us, that by this method he has cured diſeaſed teſticles of two or three years ſtanding, even when ulcerated, and when the ſchirrous had begun to be affected with pricking and lancing pains.

## *Buboes*

ARE hard tumours ſeated in the groin, occaſioned by the venereal poiſon lodged in this part. They are of two kinds; viz. ſuch as proceed from a recent infection, and ſuch as accompany a confirmed lues.

* I have been accuſtomed for ſome time paſt to apply leeches to inflamed teſticles, which practice has always been followed with the moſt happy effects.

† The extract of hemlock may be made into pills, and taken in the manner directed under the article Cancer.

The cure of recent buboes, that is, such as appear soon after impure coition, may be first attempted by dispersion, and, if that should not succeed, by suppuration. To promote the dispersion of a bubo, the same regimen must be observed as was directed in the first stage of a gonorrhœa. The patient must likewise be bled, and take some cooling purges, as the decoction of tamarinds and senna, Glauber's salts, and the like*. If, by this course, the swelling and other inflammatory symptoms abate, we may safely proceed to the use of mercury, which must be continued till the venereal virus is quite subdued†.

But, if the bubo should, from the beginning, be attended with great heat, pain, and pulsation, it will be proper to promote its suppuration. For this purpose, the patient may be allowed to use his ordinary diet, and to take now and then a glass of wine. Emollient cataplasms, consisting of bread and milk, or flax-seed flour, softened with oil or fresh butter, may be applied to the part; and, where the tumour advances slowly, white lily-roots boiled, or sliced onions raw, and a sufficient quantity of yellow basilicon, may be added to the poultice.

When the tumour is ripe, which may be known by its conical figure, the softness of the skin, and a fluctuation of matter plainly to be felt under the finger, it may be opened by either caustic or a lancet‡, and afterwards dressed with digestive ointment.

Sometimes buboes can neither be dispersed nor brought to a suppuration, but remain hard, indolent tumours. In this case, the indurated glands must be consumed by caustic. If they should become schirrous, they must be dissolved by the application of hemlock, both externally and internally, as directed in the schirrous testicle.

## *Chancres*

ARE superficial, callous, eating ulcers; which may happen either with or without a gonorrhœa. They are commonly seated about the glands, and make their appearance in the following manner: First a little red pimple arises, which soon becomes pointed

* During the continuance of this practice, one drachm of the mercurial ointment should be rubbed every night, into the inside of the thigh, below the bubo. (I. C.)

† For the dispersion of the bubo, a number of leeches applied to the part affected, will be found equally efficacious as in the inflamed testicle.

‡ The latter is more advantageous than the former; if the bubo be simply punctured, and the matter discharged gradually, so as to imitate its spontanious rupture. This mode should always be prefered, when the patient cannot wait for it to break of itself.

at top, and is filled with a whitiſh matter inclining to yellow. This pimple is hot, and itches generally before it breaks; afterwards it degenerates into an obſtinate ulcer, the bottom of which is uſually covered with a viſcid mucus, and whoſe edges gradually become hard and callous. Sometimes the firſt appearance reſembles a ſimple excoriation of the cuticle; which, if the cauſe be venereal, ſoon becomes a true chancre.

A chancre is ſometimes a primary affection, but it is much oftner ſymptomatic, and is the mark of a confirmed lues. Primary chancres diſcover themſelves ſoon after impure coition, and are generally ſeated in parts covered with a thin cuticle, as the lips, the nipples of women, the *glans penis* of men, &c*.

When a chancre appears ſoon after impure coition, its treatment is nearly ſimilar to that of the virulent gonorrhœa. The patient muſt obſerve the cooling regimen, loſe a little blood, and take ſome gentle doſes of ſalts and manna. The parts affected ought frequently to be bathed, or rather ſoaked, in warm milk and water, and if the inflammation be great, an emollient poultice or cataplaſm may be applied to them. This courſe will, in moſt caſes, be ſufficient to abate the inflammation, and prepare the patient for the uſe of mercury.

Symptomatic chancres are commonly accompanied with ulcers in the throat, nocturnal pains, ſcurfy eruptions about the roots of the hair, and other ſymptoms of a confirmed lues. Though they may be ſeated in any of the parts mentioned above, they commonly appear upon the private parts, or the inſide of the thigh. They are alſo leſs painful, but frequently much larger and harder than primary chancres. As their cure muſt depend upon that of the pox, of which they are only a ſymptom, we ſhall take no further notice of them till we come to treat of a confirmed lues†.

Thus we have related moſt of the ſymptoms which accompany or ſucceed a virulent gonorrhœa, and have alſo given a ſhort view of their proper treatment; ſeveral others ſometimes attend this diſeaſe, as a *ſtrangury* or obſtruction of urine, a *phymoſis*, *paraphymoſis*, &c.

A ſtrangury may be occaſioned either by a ſpaſmodic conſtriction, or an inflammation of the urethra and parts about the neck of

* When venereal ulcers are ſeated in the lips, the infection may be communicated by kiſſing. I have ſeen very obſtinate venereal ulcers in the lips, which I had all the reaſon in the world to believe were communicated in this manner.

Nurſes ought to beware of ſuckling infected children, or having their breaſts drawn by perſons tainted with the venereal diſeaſe. This caution is peculiarly neceſſary for nurſes who reſide in the neighbourhood of great towns.

† I have found it anſwer extremely well to ſprinkle chancres twice a-day with calomel. This will often perform a cure without any othe application whatever. If the chancres are upon the *glans*, they may be waſhed with milk and water, a little warm, and afterwards the calomel may be applied as above.

the bladder. In the former caſe, the patient begins to void his urine with tolerable eaſe; but, as ſoon as it touches the galled or inflamed urethra, a ſudden conſtriction takes place, and the urine is voided by ſpurts, and ſometimes by drops only. When the ſtrangury is owing to an inflammation about the neck of the bladder, there is a conſtant heat and uneaſineſs of the part, a perpetual deſire to make water, while the patient can only render a few drops, and a troubleſome *teneſmus*, or conſtant inclination to go to ſtool.

When the ſtrangury is owing to ſpaſm, ſuch medicines as tend to dilute and blunt the ſalts of the urine will be proper. For this purpoſe, beſides the common diluting liquors, ſoft and cooling emulſions, ſweetened with the ſyrup of poppies, may be uſed. Should theſe not have the deſired effect, bleeding, and emollient fomentations, will be neceſſary.

When the complaint is evidently owing to an inflammation about the neck of the bladder, bleeding muſt be more liberally performed, and repeated according to the urgency of the ſymptoms. After bleeding, if the ſtrangury ſtill continues, ſoft clyſters, with a proper quantity of laudanum in them, may be adminiſtered, and emollient fomentations applied to the region of the bladder. At the ſame time, the patient may take every four hours a tea-cupful of barley-water, to an Engliſh pint of which ſix ounces of the ſyrup of marſh-mallows, four ounces of the oil of ſweet almonds, and half an ounce of nitre, may be added. If theſe remedies ſhould not relieve the complaint, and a total ſuppreſſion of urine ſhould come on, bleeding muſt be repeated, and the patient ſet in a warm bath up to the middle. It will be proper in this caſe to diſcontinue the diuretics, and to draw off the water with a catheter; but as the patient is ſeldom able to bear its being introduced, we rather recommend the uſe of mild bougies. Theſe often lubricate the paſſage, and greatly facilitate the diſcharge of urine. When they begin to ſtimulate or give any uneaſineſs, they may be withdrawn.

The *phymoſis* is ſuch a conſtriction of the prepuce over the glans, as hinders it from being drawn backwards; the *paraphymoſis*, on the contrary, is ſuch a conſtriction of the prepuce behind the glans, as hinders it from being brought forward.

The treatment of theſe ſymptoms is ſo nearly the ſame with that of the virulent gonorrhœa, that we have no occaſion to enlarge upon it. In general, bleeding, purging, poultices, and emollient fomentations are ſufficient.

Sometimes in ſpite of all endeavours to the contrary, the inflammation goes on, and ſymptoms of a beginning mortification appear. When this is the caſe, the prepuce muſt be ſcarified with a lancet, and, if neceſſary, divided, in order to prevent a ſtrangulation, and ſet the impriſoned glans at liberty. We ſhall not deſcribe this operation, as it ought always to be done by a ſurgeon. When a mortification has actually taken place, it will be neceſſary, beſides performing the above operations, to foment the parts frequently with

cloths wrung out of a ſtrong decoction of camomile-flowers and bark, and to give the patient a drachm of the bark in powder every two or three hours.

With regard to the *priapiſm*, *chordee*, and other diſtortions of the *penis*, their treatment is no way different from that of the gonorrhœa. When they prove very troubleſome, the patient may take a few drops of laudanum at night, eſpecially after the operation of a purgative through the day.

## *Of a Confirmed Lues.*

WE have hitherto treated of thoſe affections, in which the venereal poiſon is ſuppoſed to be confined chiefly to the particular part by which it was received, and ſhall next take a view of the lues in in its confirmed ſtate; that is, when the poiſon is actually received into the blood, and circulating with it through every part of the body, mixes with the ſeveral ſecretions, and renders the whole habit tainted.

The ſymptoms of a confirmed lues are, buboes in the groin, pains of the head and joints, which are peculiarly troubleſome in the night, or when the patient is warm in bed; ſcabs and ſcurfs in various parts of the body, eſpecially on the head, of a yellowiſh colour, reſembling a honey-comb; corroding ulcers in various parts of the body, which generally begin about the throat, from whence they creep gradually, by the palate, towards the cartilage of the noſe, which they deſtroy; excreſcences or exoſtoſes ariſe in the middle of the bones, and their ſpongy ends become brittle, and break upon the leaſt accident; at other times they are ſoft, and bend like wax; the conglobate glands become hard and callous, and form, in the neck, armpits, groin, and meſentery, hard moveable tumours, like the king's evil; tumours of different kinds are likewiſe formed in the lymphatic veſſels, tendons, ligaments, and nerves, as the *gummata*, *ganglia*, *nodes*, *tophs*, &c.; the eyes are affected with itching, pain, redneſs, and ſometimes with total blindneſs, and the ears with a ſinging noiſe, pain and deafneſs, whilſt their internal ſubſtance is exulcerated and rendered carious; at length all the animal, vital, and natural functions are depraved; the face becomes pale and livid; the body emaciated and unfit for motion, and the patient falls into an atrophy or waſting conſumption.

Women have ſymptoms peculiar to the ſex; as cancers of the breaſt; a ſuppreſſion or overflowing of the menſes; the whites; hyſteric affections; an inflammation, abſceſs, ſchirrus, gangrene, cancer, or ulcer of the womb; they are generally either barren or ſubject to abortion; or, if they bring children into the world, they have an univerſal eryſipelas, are half rotten, and covered with ulcers,

Such is the catalogue of ſymptoms attending this diſeaſe in its confirmed ſtate. They are ſeldom all to be met with in the ſame perſon, or at the ſame time; ſo many of them, however, are generally preſent as are ſufficient to alarm the patient; and if he has reaſon to ſuſpect the infection is lurking in his body, he ought immediately to ſet about the expulſion of it, otherwiſe the moſt tragical conſequences will enſue.

The only certain remedy hitherto known in Europe, for the cure of this diſeaſe, is mercury, which may be uſed in a great variety of forms, with nearly the ſame ſucceſs. Some time ago it was reckoned impoſſible to cure a confirmed lues without a ſalivation. This method is now generally laid aſide, and mercury is found to be as efficacious, or rather more ſo, in expelling the venereal poiſon, when adminiſtered in ſuch a manner as not to run off by the ſalivary glands.

Though many are of opinion, that the mercurial ointment is as efficacious as any other preparation of that mineral; yet experience has taught me to think otherwiſe. I have often ſeen the moſt obſtinate venereal caſes, where great quantities of mercurial ointment had been uſed in vain, yield to the ſaline preparations of mercury. Nor am I ſingular in this opinion. My ingenious friend, Mr. Clare, an eminent ſurgeon of this city, aſſures me, that for ſome time paſt, he has employed, in venereal caſes, a ſaline preparation of mercury with moſt happy ſucceſs. This preparation, rubbed with a ſufficient quantity of any mild powder, he applies, in ſmall portions, to the tongue, where, with a gentle degree of friction, it is immediately abſorbed, and produces its full effect upon the ſyſtem, without doing the leaſt injury to the ſtomach or bowels; a matter of the greateſt importance in the application of this moſt active and powerful remedy*.

It is impoſſible to aſcertain either the exact quantity of medicines that muſt be taken, or the time they ought to be continued, in order to perform a cure. Theſe vary according to the conſtitution of the patient, the ſeaſon of the year, the degree of infection, the time it has lodged in the body, &c. It is difficult to determine *a priori*, what quantity of mercury will be neceſſary to cure this diſtemper completely; yet it may be judged of *a poſteriori*, from the abatement and ceaſing of the ſymptoms. Aſtruc ſays, that commonly

* The beſt method of introducing mercury into the ſyſtem to remedy this diſeaſe, is by mercurial ointment, as it is leſs liable when uſed in this manner to paſs off by the bowels. One or two drachms of this ointment, ſhould be rubbed on the inſides of each thigh every night until the gums are affected; when the ointment cannot be conveniently uſed, one of the mercurial pills (*See Appendix.*) muſt be taken every night and morning, combined with a quarter of a grain of opium, to retain the mercury in the bowels. This practice muſt be continued until the ſymptoms diſappear, and for ten or fifteen days afterwards. I. C.

not leſs than two ounces of the ſtrong mercurial ointment is ſufficient, and not more than three or four ounces neceſſary.

The only other preparation of mercury which we ſhall take notice of, is the corroſive ſublimate*. This was ſome time ago brought into uſe for the venereal diſeaſe, in Germany, by Baron Van Swieten; and was ſoon after introduced into Britain by Sir John Pringle. The method of giving it is as follows: One grain of corroſive ſublimate is diſſolved in two ounces of French brandy or malt ſpirits; and of this ſolution, an ordinary table-ſpoonful, or the quantity of half an ounce, is to be taken twice a-day, and to be continued as long as any ſymptoms of the diſorder remain. To thoſe whoſe ſtomach cannot bear the ſolution, the ſublimate may be given in form of pill†.

Several roots, woods, and barks, have been recommended for curing the venereal diſeaſe; but none have upon experience anſwered the high encomiums beſtowed upon them. Though no one of theſe is to be depended upon alone, yet, when joined with mercury, ſome of them are found to be very beneficial in promoting a cure. One of the beſt is ſarſaparilla, which may be prepared and taken according to the directions in the appendix‡.

The mezereon-root is found to be a powerful aſſiſtant to the ſublimate, or any other mercurial. It may be uſed along with the ſarſaparilla, as directed in the appendix, or by itſelf. Thoſe who chooſe the mezereon by itſelf, may boil an ounce of the freſh bark, taken from the root, in twelve Engliſh pints of water to eight, adding towards the end an ounce of liquorice. The doſe of this is the ſame as of the decoction of ſarſaparilla.

We have been told that the natives of America cure the venereal diſeaſe, in every ſtage, by a decoction of the root of a plant called the Lobelia. It is uſed either freſh or dried; but we have no certain accounts with regard to the proportion. Sometimes they mix other roots with it, as thoſe of the ranunculus, the ceanothus, &c.; but whether theſe are deſigned to diſguiſe or aſſiſt it, is doubtful. The patient takes a large draught of the decoction early in the morning, and continues to uſe it for his ordinary drink through the day§.

* This preparation of mercury is thought to be more efficacious than any other, in venereal affections of the ſkin. I. C.

† The ſublimate may be given in diſtilled water, or any other liquor that the patient chooſes. I commonly order ten grains to be diſſolved in an ounce of the ſpirit of wine, for the conveniency of carriage, and let the patient take twenty or thirty drops of it night and morning in half a glaſs of brandy or other ſpirits. Mr. Debraw, an ingenious chemiſt of this place, prepares a ſalt of mercury much more mild and gentle in its operation than the ſublimate, though equally efficacious.

‡ See Appendix, *Decott. of Sarſaparilla.*

§ Though we are ſtill very much in the dark with regard to the method of curing this diſeaſe among the natives of America, yet it is generally affirmed, that they do cure it with ſpeed, ſafety, and ſucceſs, and that without the leaſt knowledge of mercury. Hence it becomes an object of conſiderable importance to diſcover their method of cure.

Many other roots and woods might be mentioned which have been extolled for curing the venereal diſeaſe, as the china-root, the roots of ſoap-wort, burdock, &c. as alſo the wood of guaiacum and ſaſſafras; but, as none of theſe poſſeſs virtues ſuperior to thoſe already mentioned, we ſhall paſs them over, and ſhall conclude our obſervations on this diſeaſe, with a few general remarks concerning the proper management of the patient, and the nature of the infection.

## *General Obſervations.*

THE condition of the patient ought always to be conſidered previous to his entering upon a courſe of mercury in any form. It would be raſh and dangerous to adminiſter mercury to a perſon labouring under any violent acute diſeaſe, as fevers, pleuriſy, peripneumony, or the like. It would be dangerous in ſome chronic caſes; as a ſlow hectic fever, or the laſt ſtage of a conſumption. Sometimes, however, theſe diſeaſes proceed from a confirmed lues; in which caſe, it will be neceſſary to give mercury. In chronic diſeaſes of a leſs dangerous nature, as the aſthma, the gravel, and ſuch like, mercury, if neceſſary, may be ſafely adminiſtered. If the patient's ſtrength has been greatly exhauſted by ſickneſs, labour, abſtinence, or any other cauſe, the uſe of mercury muſt be poſtponed, till, by time, reſt, and a nouriſhing diet, it can be ſufficiently reſtored.

Mercury ought not to be adminiſtered to women during the menſtrual flux, or when the period is near at hand. Neither ſhould it be given in the laſt ſtage of pregnancy. If the woman be not near the time of her delivery, and circumſtances render it neceſſary, mercury may be given, but in ſmaller doſes, and at greater intervals than uſual: with theſe precautions, both the mother and child may be cured at the ſame time; if not, the diſorder will at leaſt be kept from growing worſe, till the woman be brought to bed, and ſufficiently recovered, when a more effectual method may be purſued, which, if ſhe ſuckles her child, will in all probability be ſufficient for the cure of both.

Mercury ſhould be adminiſtered to infants with the greateſt cau-

This might ſurely be done by making trials of the various plants which are found in thoſe parts, and particularly of ſuch as the natives are known to make uſe of. All people in a rude ſtate take their medicines chiefly from the vegetable kingdom, and are often poſſeſſed of valuable ſecrets with regard to the virtues of the plants, of which more enlightened nations are ignorant. Indeed, we make no doubt but ſome plants of our own growth, were proper pains taken to diſcover them, would be found as efficacious in curing the venereal diſeaſe as thoſe of America. It muſt however be remembered, that what will cure the venereal diſeaſe in one country, will not always have equal ſucceſs in another.

tion. Their tender condition unfits them for ſupporting a ſalivation, and makes it neceſſary to give even the mildeſt preparations of mercury to them with a ſparing hand. A ſimilar conduct is recommended in the treatment of old perſons, who labour under a confirmed lues. The infirmities of age muſt render people leſs able to undergo the fatigues of a ſalivation; but this, as formerly obſerved, is never neceſſary; beſides, we have generally found, that mercury had much leſs effect upon very old perſons than on thoſe who were younger.

Hyſteric and hypochondriac perſons, and ſuch as are ſubject to an habitual diarrhœa* or dyſentery, or to frequent and violent attacks of the epilepſy, or who are afflicted with the ſcrophula, or the ſcurvy, ought to be cautious in the uſe of mercury. Where any one of theſe diſorders prevails, it ought, if poſſible, to be cured, or at leaſt palliated, before the patient enters upon a courſe of mercury. When this cannot be done, the mercury muſt be adminiſtered in ſmaller doſes, and at longer intervals than uſual.

The moſt proper ſeaſons for entering upon a courſe of mercury are, the ſpring and autumn, when the air is of a moderate warmth. If the circumſtances of the caſe will not admit of delay, we muſt not defer the cure on account of the ſeaſon, but muſt adminiſter the mercury; taking care at the ſame time to keep the patient's chamber warmer or cooler, according as the ſeaſon of the year requires.

The next thing to be conſidered is the preparation to be obſerved before we proceed to a courſe of mercury. Some lay great ſtreſs upon this circumſtance, obſerving, that by previouſly relaxing the veſſels, and correcting any diſorder which may happen to prevail in the blood, not only the mercury will be diſpoſed to act more kindly, but many other inconveniencies will be prevented.

We have already recommended bleeding and gentle purges, previous to the adminiſtration of mercury, and ſhall only now add, that theſe are always to be repeated according to the age, ſtrength, conſtitution, and other circumſtances of the patient. Afterwards, if it can be conveniently done, the patient ought to bathe once or twice a-day, for a few days, in lukewarm water. His diet in the mean time muſt be light, moiſt, and cooling. Wine, and all heating liquors, alſo violent bodily exerciſe, and all great exertions of the mind, are carefully to be avoided.

A proper regimen is to be obſerved by ſuch as are under a courſe of mercury. Inattention to this not only endangers the patient's life, but often alſo diſappoints him of a cure. A much ſmaller quantity of mercury will cure a perſon who lives moderate, keeps warm, and avoids all exceſs, than one who cannot endure to put the ſmalleſt reſtraint upon his appetites: indeed it but rarely happens that ſuch are thoroughly cured.

* In lues venerea, when the patient is troubled with diarrhœa, mercury ſhould be introduced into the ſyſtem by friction of mercurial ointment on the inſide of the thighs. I. C.

There is hardly any thing of more importance, either for preventing or removing venereal infection than cleanlineſs. By an early attention to this, the infection might often be prevented from entering the body; and, where it has already taken place, its effects may be greatly mitigated. The moment any perſon has reaſon to ſuſpect that he has received the infection, he ought to waſh the parts with water and ſpirits, ſweet oil, or milk and water; a ſmall quantity of the laſt may likewiſe be injected up the urethra, if it can be conveniently done. Whether this diſeaſe at firſt took its riſe from dirtineſs is hard to ſay; but wherever that prevails, the infection is found in its greateſt degree of virulence, which gives ground to believe that a ſtrict attention to cleanlineſs would go far towards extirpating it*.

When the diſeaſe has been neglected, or improperly treated, it often becomes a diſorder of the habit. In this caſe, the cure muſt be attempted by reſtoratives, as a milk diet, the decoction of ſarſaparilla, and ſuch like, to which mercury may be occaſionally added. It is a common practice in North Britain to ſend ſuch patients to drink goat-whey. This is a very proper plan, provided the infection has been totally eradicated before-hand; but when that is not the caſe, and the patient truſts to the whey for finiſhing his cure, he will often be diſappointed. I have frequently known the diſeaſe return with all its virulence after a courſe of goat-whey, even when that courſe had been thought quite ſufficient for completing the cure.

One of the moſt unfortunate circumſtances attending patients in this diſeaſe, is the neceſſity they are often laid under of being ſoon

* I have not only often ſeen a recent infection carried off in a few days by means of cleanlineſs, viz. bathing, fomentations, injections, &c. but have likewiſe found it of the greateſt advantage in the more advanced ſtages of the diſeaſe. Of this I had lately a very remarkable inſtance, in a man whoſe penis was almoſt wholly conſumed by venereal ulcers: the matter had been allowed to continue on the ſores, without any care having been taken to clean them, till, notwithſtanding the uſe of mercury and other medicines, it had produced the effects above mentioned. I ordered warm milk and water to be injected three or four times a-day into all the ſinuous ulcers, in order to waſh out the matter; after which they were ſtuffed with dry lint to abſorb the freſh matter as it was generated. The patient at the ſame time took every day half a grain of the corroſive ſublimate of mercury, diſſolved in an ounce of brandy, and drank an Engliſh quart of the decoction of ſarſaparilla. By this treatment, in about ſix weeks, he was perfectly cured; and, what was very remarkable, a part of the penis was actually regenerated.

Doctor Gilchriſt has given an account of a ſpecies of the *lues venerea* which prevails in the weſt of Scotland, to which the natives give the name of *Sibbins or Sivvins*. He obſerves, that the ſpreading of this diſeaſe is chiefly owing to a neglect of cleanlineſs, and ſeems to think, that by due attention to that *virtue* it might be extirpated. The treatment of this diſeaſe is ſimilar to that of a confirmed lues or pox. The *yaws*, a diſeaſe now very common both in America and the Weſt-India iſlands, may be cured in the ſame manner.

well. This induces them to take medicine too faſt, and to leave it off too ſoon. A few grains more of medicine, or a few days longer confinement, would often be ſufficient to perfect the cure; whereas, by neglect of theſe, a ſmall degree of virulence is ſtill left in the humours, which gradually vitiates, and at length contaminates the whole maſs. To avoid this, we would adviſe the patient never to leave off taking medicine immediately upon the diſappearing of the ſymptoms, but continue it for ſome time after, gradually leſſening the quantity, till there is ſufficient ground to believe that the diſeaſe is entirely cradicated.

It is not only difficult, but impoſſible, to aſcertain the exact degree of virulence that may attend the diſeaſe; for which reaſon, it will always be much ſafer to uſe medicine too long, than to leave it off too ſoon. A modern practitioner of ſome note for the venereal diſeaſe, always orders his patient to perform a quarantine of at leaſt forty days, during which time he takes forty bottles of, I ſuppoſe, a ſtrong decoction of ſarſaparilla, or ſome other anti-venereal ſimple. Whoever takes this method, and adds a ſufficient quantity of corroſive ſublimate, or ſome other active preparation of mercury to the decoction, will ſeldom fail to cure a confirmed lues.

It is unfortunate for the cure of this diſeaſe, that not one in ten of thoſe who contract it, are able or willing to ſubmit to a proper plan of regimen. The patient is willing to take medicine; but he muſt follow his buſineſs, and, to prevent ſuſpicions, muſt eat and drink like the reſt of the family. This is the true ſource of nine-tenths of all the miſchief ariſing from the venereal diſeaſe. I never knew the cure attended with any great difficulty or danger where the patient ſtrictly followed the phyſician's advice: but a volume would not be ſufficient to point out the dreadful conſequences which proceed from an oppoſite conduct. Schirrous teſticles, ulcerous ſore throats, madneſs, conſumptions, carious bones, and a rotten progeny, are a few of the bleſſings derived from this ſource.

There is a ſpecies of falſe reaſoning, with regard to this diſeaſe, which proves fatal to many. A perſon of a ſound conſtitution contracts a ſlight degree of the diſorder. He gets well without taking any great care, or uſing much medicine, and hence concludes that this will always be the caſe. The next time the diſeaſe occurs, though ten times more virulent, he purſues the ſame courſe, and his conſtitution is ruined. The different degrees of virulence in the ſmall-pox are not greater than in this diſeaſe, though, as Sydenham obſerves, in ſome caſes the moſt ſkilful phyſicians cannot cure, and in others, the moſt ignorant old woman cannot kill the patient in that diſorder. A good conſtitution is always in favour of the patient, yet too great ſtreſs may be laid upon it. It does not appear from obſervation, that the moſt robuſt conſtitution is able to overcome the virulence of the venereal contagion, after it has got into the habit. In this caſe, a proper courſe of medicine is always indiſpenſably neceſſary.

Although it is impoſſible, on account of the different degrees of virulence, &c. to lay down fixed and certain rules for the cure of this diſeaſe, yet the following general plan will always be found ſafe, and often ſucceſsful, viz. to bleed and adminiſter gentle purges with diuretics during the inflammatory ſtate, and as ſoon as the ſymptoms of inflammation are abated, to adminiſter mercury, in any form agreeable to the patient. The ſame medicine, aſſiſted by the decoction of ſarſaparilla, and a proper regimen, will not only ſecure the conſtitution againſt a further progreſs of a confirmed pox, but will generally perform a complete cure.

## CHAPTER L.

### *Diſeaſes of Women.*

WOMEN, in all civilized nations, have the management of domeſtic affairs, and it is very proper they ſhould, as Nature has made them leſs fit for the more active and laborious employments. This indulgence, however, is generally carried too far; and females, inſtead of being benefited by it, are greatly injured, from the want of exerciſe and free air. To be ſatisfied of this, one need only compare the freſh and ruddy looks of a milk-maid with the pale complexion of thoſe females whoſe whole time is ſpent within doors. Nature has made an evident diſtinction between the male and female, with regard to bodily ſtrength and vigour, yet ſhe certainly never meant, either that the one ſhould be always without, or the other always within doors.

The confinement of females, beſides hurting their figure and complexion, relaxes their ſolids, weakens their minds, and diſorders all the functions of the body. Hence proceed obſtructions, indigeſtion, flatulence, abortions, and the whole train of nervous diſorders. Theſe not only unfit women for being mothers and nurſes, but often render them whimſical and ridiculous. A ſound mind depends ſo much upon a healthy body, that where the latter is wanting, the former is rarely to be found.

Women who are chiefly employed without doors, in the different branches of huſbandry, gardening, and the like, are almoſt as hardy as their huſbands, and their children are likewiſe ſtrong and healthy. But as the bad effects of confinement and inactivity upon both ſexes have been already ſhewn, we ſhall proceed to point out thoſe circumſtances in the ſtructure and deſign of females, which ſubject them to peculiar diſeaſes; the chief of which are, their *monthly evacuations*, *pregnancy*, and *child-bearing*. Theſe indeed cannot properly be called diſeaſes, but from the delicacy of the ſex, and their being often improperly managed in ſuch ſituations, they become the ſource of numerous calamities.

## *Of the Menſtrual Diſcharge.*

FEMALES generally begin to menſtruate about the age of fifteen, and leave it off about fifty*, which renders theſe two periods the moſt critical of their lives. About the firſt appearance of this diſcharge, the conſtitution undergoes a very conſiderable change, generally indeed for the better, though ſometimes for the worſe. The greateſt care is now neceſſary, as the future health and happineſs of the female depends in a great meaſure upon her conduct at this period†.

If a girl about this time of life be confined to the houſe, kept conſtantly ſitting, and neither allowed to romp about, nor employed in any active buſineſs, which gives exerciſe to the whole body, ſhe becomes weak, relaxed, and puny; her blood not being duly prepared, ſhe looks pale and wan; her health, ſpirits, and vigour decline, and ſhe ſinks into a valetudinarian for life. Such is the fate of numbers of thoſe unhappy females, who, either from too much indulgence, or their own narrow circumſtances, are, at this critical period, denied the benefit of exerciſe and free air.

A lazy diſpoſition proves likewiſe very hurtful to girls at this period. One ſeldom meets with complaints from obſtructions amongſt the more active and induſtrious part of the ſex; whereas, the indolent are ſeldom free from them. Theſe are in a manner eaten up by the *chloroſis*, or green-ſickneſs, and other diſeaſes of this nature. We recommend it to all who wiſh to eſcape theſe calamities, to avoid indolence and inactivity, as their greateſt enemies, and to be as much abroad in the open air as poſſible.

Another thing which proves very hurtful to girls about this period of life, is unwholeſome food. Fond of all manner of traſh, they often indulge in it to exceſs. Hence enſue indigeſtions, want of appetite, and a numerous train of evils. If the fluids be not duly prepared, it is utterly impoſſible that the ſecretions ſhould go properly on. Accordingly, ſuch girls as lead an indolent life, and eat great quantities of traſh, are not only ſubject to obſtructions of the *menſes*, but likewiſe to glandular obſtructions; as the ſcrophula or king's evil, &c.

* In America, generally about forty-five. I. C.

† It is the duty of mothers, and thoſe who are intruſted with the education of girls, to inſtruct them early in the conduct and management of themſelves at this critical period of their lives. Falſe modeſty, inattention, and ignorance of what is beneficial or hurtful at this time, are the ſources of many diſeaſes and misfortunes in life, which a few ſenſible leſſons from an experienced matron might have prevented. Nor is care leſs neceſſary in the ſubſequent returns of this diſcharge. Taking improper food, violent affections of the mind, or catching cold at this period, is often ſufficient to ruin the health, or to render the female ever after incapable of procreation.

A dull diſpoſition is alſo very hurtful to girls at this period. It is rare to ſee a ſprightly girl who does not enjoy good health, while the grave, moping, melancholy creature, proves the very prey of vapours and hyſterics. Youth is the ſeaſon for mirth and cheerfulneſs. Let it therefore be indulged. It is an abſolute duty. To lay in a ſtock of health in time of youth, is as neceſſary a piece of prudence as to make proviſion againſt the decays of old age. While wiſe Nature prompts the happy youth to join in ſprightly amuſements, let not the ſevere dictates of hoary age forbid the uſual impulſe, nor damp, with ſerious gloom, the ſeaſon deſtined to mirth and innocent feſtivity.

Another thing very hurtful to females about this period of life is ſtrait clothes. They are fond of a fine ſhape, and fooliſhly imagine this can be acquired by lacing themſelves tight. Hence, by ſqueezing the ſtomach and bowels, they hurt the digeſtion, and occaſion many incurable maladies. This error is not indeed ſo common as it has been; but, as faſhions change, it may come about again: many females, to this day, feel the direful effects of that wretched cuſtom which prevailed ſome years ago, of ſqueezing every girl into as ſmall a ſize in the middle as poſſible. Human invention could not poſſibly have deviſed a practice more deſtructive to health.

After a female has arrived at that period of life when the *menſes* uſually begin to flow, and they do not appear, but, on the contrary, her health and ſpirits begin to decline, we would adviſe, inſtead of ſhutting the poor girl up in the houſe, and doſing her with ſteel, aſafœtida, and other nauſeous drugs, to place her in a ſituation where ſhe can enjoy the benefit of free air and agreeable company. There let her eat wholeſome food, take ſufficient exerciſe, and amuſe herſelf in the moſt agreeable manner; and we have little reaſon to fear, but Nature, thus aſſiſted, will do her proper work. She ſeldom fails, unleſs where the fault is on our ſide.

This diſcharge in the beginning is ſeldom ſo inſtantaneous as to ſurpriſe females unawares. It is generally preceded by ſymptoms which foretel its approach; as a ſenſe of heat, weight, and dull pain in the loins; diſtenſion and hardneſs of the breaſts; headach; loſs of appetite; laſſitude; paleneſs of the countenance; and ſometimes a ſlight degree of fever. When theſe ſymptoms appear about the age of which the menſtrual flux uſually begins, every thing ſhould be carefully avoided which may obſtruct that neceſſary and ſalutary evacuation; and all means uſed to promote it; as ſitting frequently over the ſteams of warm water, drinking warm diluting liquors, &c.

After the *menſes* have once begun to flow, the greateſt care ſhould be taken to avoid every thing that may tend to obſtruct them. Females ought to be exceeding cautious of what they eat or drink at the time they are out of order. Every thing that is cold, or apt to ſour on the ſtomach, ought to be avoided; as fruit, butter-milk,

and ſuch like. Fiſh, and all kinds of food that are hard of digeſtion, are alſo to be avoided. As it is impoſſible to mention every thing than may diſagree with individuals at this time, we would recommend it to every female to be very attentive to what diſagrees with herſelf, and carefully to avoid it.

Cold is extremely hurtful at this particular period. More of the ſex date their diſorders from colds, caught while they are out of order, than from all other cauſes. This ought ſurely to put them upon their guard, and to make them very circumſpect in their conduct at ſuch times. A degree of cold that will not in the leaſt hurt them at another time, will at this period be ſufficient entirely to ruin their health and conſtitution.

The greateſt attention ought likewiſe to be paid to the mind, which ſhould be kept as eaſy and cheerful as poſſible. Every part of the animal economy is influenced by the paſſions, but none more ſo than this. Anger, fear, grief, and other affections of the mind, often occaſion obſtructions of the menſtrual flux, which prove abſolutely incurable.

From whatever cauſe this flux is obſtructed, except in the ſtate of pregnancy, proper means ſhould be uſed to reſtore it. For this purpoſe, we recommend ſufficient exerciſe, in a dry, open, and rather cool air; wholeſome diet, and, if the body be weak and languid, generous liquors; alſo cheerful company, and all manner of amuſements. If theſe fail, recourſe muſt be had to medicine.

When obſtructions proceed from a weak relaxed ſtate of the ſolids, ſuch medicines as tend to promote digeſtion, to brace the ſolids and aſſiſt the body in preparing good blood, ought to be uſed. The principal of theſe are iron and the Peruvian bark, with other bitter and aſtringent medicines. Filings of iron may be infuſed in wine or ale, two or three ounces to an Engliſh quart, and after it has ſtood for two or three weeks, it may be filtered, and about half a wine glaſs of it taken twice a-day: or prepared ſteel may be taken in the doſe of half a drachm, mixed with a little honey or treacle, three or four times a-day. The bark and other bitters may either be taken in ſubſtance or infuſion, as is moſt agreeable to the patient.

When obſtructions proceed from a viſcid ſtate of the blood; or from women of a groſs or full habit, evacuations, and ſuch medicines as attenuate the humours, are neceſſary. The patient, in this caſe, ought to be bled, to bathe her feet frequently in warm water, to take now and then a cooling purge, and to live upon a ſpare, thin diet. Her drink ſhould be whey, water, or ſmall-beer, and ſhe ought to take ſufficient exerciſe. A tea-ſpoonful of the tincture of black hellebore may be taken twice a-day in a cup of warm water.

When obſtructions proceed from affections of the mind, as grief, fear, anger, &c. every method ſhould be uſed to amuſe and divert the patient. And that ſhe may the more readily forget the cauſe of her affliction, ſhe ought, if poſſible, to be removed from the place where it happened. A change of place, by preſenting the mind

with a variety of new objects, has often a very happy influence in relieving it from the deepeſt diſtreſs. A ſoothing, kind, and affable behaviour to females in this ſituation, is alſo of the laſt importance.

An obſtruction of the *menſes* is often the effect of other maladies. When this is the caſe, inſtead of giving medicines to force that diſcharge, which might be dangerous, we ought, by all means, to endeavour to reſtore the patient's health and ſtrength. When that is effected, the other will return of courſe.

But the menſtrual flux may be too great as well as too ſmall. When this happens, the patient becomes weak, the colour pale, the appetite and digeſtion are bad, and œdematous ſwellings of the feet, dropſies, and conſumptions often enſue. This frequently happens to women about the age of forty-five or fifty, and is very difficult to cure. It may proceed from a ſedentary life; a full diet, conſiſting chiefly of ſalted, high-ſeaſoned, or acrid food; the uſe of ſpirituous liquors; exceſſive fatigue; relaxation; a diſſolved ſtate of the blood; violent paſſions of the mind, &c.

The treatment of this diſeaſe muſt be varied according to its cauſe. When it is occaſioned by any error in the patient's regimen, an oppoſite courſe to that which induced the diſorder muſt be purſued, and ſuch medicines taken as have a tendency to reſtrain the flux, and counteract the morbid affections of the ſyſtem from whence it proceeds.

To reſtrain the flux, the patient ſhould be kept quiet and eaſy both in body and mind. If it be very violent, ſhe ought to lie in bed with her head low; to live upon a cool and ſlender diet, as veal or chicken broths with bread; and to drink decoctions of nettle-roots, or the greater comfrey. If theſe be not ſufficient to ſtop the flux, ſtronger aſtringents may be uſed, as Japan earth, allum, elixir of vitriol, the Peruvian bark, &c*.

The *uterine flux* may offend in quality as well as in quantity. What is uſually called the *fluor albus*, or whites, is a very common diſeaſe, and proves extremely hurtful to delicate women. This diſcharge, however, is not always white, but ſometimes pale, yellow, green, or of a blackiſh colour; ſometimes it is ſharp and corroſive, ſometimes foul and fœtid, &c. It is attended with a pale complexion, pain in the back, loſs of appetite, ſwelling of the feet, and other ſigns of debility. It generally proceeds from a relaxed ſtate of the body, ariſing from indolence, the exceſſive uſe of tea, coffee, or other weak and watery diet.

* Two drachms of allum and one of Japan earth, may be pounded together, and divided into eight or nine doſes, one of which may be taken three times a-day.

Perſons, whoſe ſtomachs cannot bear the allum, may take two tableſpoonfuls of the tincture of roſes three or four times a-day, to each doſe of which, ten drops of laudanum may be added.

If theſe ſhould fail, half a drachm of the Peruvian bark, in powder, with ten drops of the elixir of vitriol, may be taken, in a glaſs of red wine, four times a-day.

To remove this diſeaſe, the patient muſt take as much exerciſe as ſhe can bear without fatigue. Her food ſhould be ſolid and nouriſhing, but of eaſy digeſtion; and her drink rather generous, as red port or claret, mixed with Pyrmont, Briſtol, or lime-water. Tea and coffee are to be avoided. I have often known ſtrong broths have an exceeding good effect; and ſometimes a milk diet alone will perform a cure. The patient ought not to lie too long a-bed. When medicine is neceſſary, we know none preferable to the bark, which, in this caſe, ought always to be taken in ſubſtance. In warm weather, the cold bath will be of conſiderable ſervice.

The period of life at which the menſes ceaſe to flow, is likewiſe very critical to the ſex. The ſtoppage of any cuſtomary evacuation, however ſmall, is ſufficient to diſorder the whole frame, and often to deſtroy life itſelf. Hence ſo many women either fall into chronic diſorders, or die about this time. Such of them, however, as ſurvive it, without contracting any chronic diſeaſe, often become more healthy and hardy than they were before, and enjoy ſtrength and vigour to a very great age.

If the menſes ceaſe all of a ſudden, in women of a full habit, they ought to abate ſomewhat of their uſual quantity of food, eſpecially of the more nouriſhing kind, as fleſh, eggs, &c. They ought likewiſe to take ſufficient exerciſe, and to keep the body open. This may be done by taking, once or twice a week, Glauber's ſalts or caſtor-oil; and if the pulſe be full and hard, ten or twelve ounces of blood ſhould be taken from the arm.

Women of a groſs habit, at this period of life, have often ulcerous ſores break out about their ancles, or in other parts of the body. Such ulcers ought to be conſidered as critical, and either ſuffered to continue open, or have artificial drains ſubſtituted in their ſtead. Women who will have ſuch ſores dried up, are often, ſoon after, carried off by acute diſeaſes, or fall into thoſe of a chronic nature.

## *Pregnancy*

IS not a diſeaſe, yet that ſtate is often attended with a variety of complaints which merit attention, and requires the aſſiſtance of medicine. Some women indeed, are more healthy during their pregnancy than at any other time; but this is by no means the general caſe: moſt of them *breed in ſorrow*, and are frequently indiſpoſed during the whole time of pregnancy. Few fatal diſeaſes, however, happen during that period; and hardly any, except abortion, that can be called dangerous. We ſhall, therefore, pay particular attention to it, as it proves generally fatal to the child, and ſometimes ſo to the mother.

Pregnant women are often afflicted with the heart burn. The method of treating this complaint has been already pointed out. They are, likewiſe, in the more early periods of pregnancy, often harraſſed with ſickneſs and vomiting, eſpecially in the morning. The method of relieving theſe complaints has alſo been ſhewn. The head-ach and tooth-ach are very troubleſome ſymptoms of pregnancy. The former may generally be removed by keeping the body gently open, by the uſe of prunes, figs, roaſted apples, and ſuch-like. When the pain is very violent, bleeding may be neceſſary. For the treatment of the latter, we muſt refer to that article. Several other complaints incident to pregnant women might be mentioned, as a cough and difficulty of breathing, ſuppreſſion and incontinency of urine, &c.; but all theſe have been taken notice of before.

Every pregnant woman is more or leſs in danger of abortion. This ſhould be guarded againſt with the greateſt care, as it not only weakens the conſtitution, but renders the woman liable to the ſame misfortune afterwards*. Abortion may happen at any period of pregnancy, but it is moſt common in the ſecond or third month. Sometimes it happens in the fourth or fifth. If within the firſt month, it is uſually called a falſe conception; if after the ſeventh month, the child may often be kept alive by proper care.

The common cauſes of abortion are, the death of the child; weakneſs or relaxation of the mother; great evacuations; violent exerciſe; raiſing great weights; reaching too high; jumping, or ſtepping from an eminence; vomiting; coughing; convulſion-fits; ſtrokes on the belly; falls; fevers; diſagreeable ſmells; exceſs of blood; indolence; high living; or the contrary; violent paſſions or affections of the mind, as fear, grief, &c.

The ſigns of approaching abortion are, pain in the loins, or about the bottom of the belly; a dull heavy pain in the inſide of the thighs; a ſlight degree of coldneſs, or ſhivering; ſickneſs, palpitation of the heart; the breaſts become flat and ſoft; the belly falls; and there is a diſcharge of blood or watery humours from the womb.

To prevent abortion, women of a weak or relaxed habit ſhould uſe ſolid food, avoiding great quantities of tea, and other weak and watery liquors; riſe early and go ſoon to bed; ſhun damp houſes; take frequent exerciſe in the open air, but avoid fatigue; and never go abroad in damp foggy weather, if they can ſhun it.

* Every woman who procures an abortion does it at the hazard of her life; yet there are not a few who run this riſk, merely to prevent the trouble of bearing and bringing up children. It is ſurely a moſt unnatural crime, and cannot, even in the moſt abandoned, be viewed without horror; but in the decent matron, it is ſtill more unpardonable. Thoſe wretches who daily advertiſe their aſſiſtance to women in this buſineſs, deſerve, in my opinion, the moſt ſevere of all human puniſhments.

Women of a full habit ought to uſe a ſpare diet, avoiding ſtrong liquors, and every thing that may tend to heat the body, or increaſe the quantity of blood. Their diet ſhould be of an opening nature, conſiſting principally of vegetable ſubſtances. Every woman with child ought to be kept cheerful and eaſy in her mind. Her appetites, even though depraved, ought to be indulged as far as prudence will permit.

When any ſigns of abortion appear, the woman ought to be laid in bed on a mattraſs, with her head low. She ſhould be kept quiet, and her mind ſoothed and comforted. She ought not to be kept too hot, nor to take any thing of a heating nature. Her food ſhould conſiſt of broths, rice and milk, jellies, gruels made of oat-meal, and the like, all of which ought to be taken cold. If ſhe be able to bear it, ſhe ſhould loſe at leaſt half a pound of blood from the arm. Her drink ought to be barley water ſharpened with juice of lemon; or ſhe may take half a drachm of powdered nitre, in a cup of water-gruel, every five or ſix hours. If ſeized with a violent looſeneſs, ſhe ought to drink the decoction of calcined hartſhorn prepared. If ſhe be affected with vomiting, let her take frequently two tableſpoonfuls of the ſaline mixture. In general, opiates are of ſervice; but they ſhould always be given with caution.

Sanguine robuſt women who are liable to miſcarry at a certain time of pregnancy, ought always to be bled a few days before that period arrives. By this means, and obſerving the regimen above preſcribed, they might often eſcape that misfortune.

Though we recommend due care for preventing abortion, we would not be underſtood as reſtraining pregnant women from their uſual exerciſes. This would generally operate the quite contrary way. Want of exerciſe not only relaxes the body, but induces a plethora, or too great a fulneſs of the veſſels, which are the two principal cauſes of abortion. There are, however, ſome women of ſo delicate a texture, that it is neceſſary for them to avoid almoſt every kind of exerciſe during the whole period of pregnancy.

## *Of Child-Birth.*

MANY diſeaſes proceed from the want of due care in child-bed; and the more hardy part of the ſex are moſt apt to deſpiſe the neceſſary precautions in this ſtate. This is peculiarly the caſe with young wives. They think, when the labour-pains are ended, the danger is over; but in truth, it may only then be ſaid to be begun. Nature, if left to herſelf, will ſeldom fail to expel the fœtus; but proper care and management are certainly neceſſary for the recovery of the mother. No doubt miſchief may be done by too much as well as by too little care. Hence females who have the greateſt

number of attendants in child-bed, generally recover worſt*. But this is not peculiar to the ſtate of child-bed. Exceſſive care always defeats its own intention, and is generally more dangerous than none at all†.

During actual labour, nothing of a heating nature ought to be given. The woman may now and then take a little panado, and her drink ought to be toaſt and water, or thin groat-gruel. Spirits, wines, cordial-waters, and other things which are given with a view to ſtrengthen the mother, and promote the birth, for the moſt part, tend only to increaſe the fever, inflame the womb, and retard the labour. Beſides, they endanger the woman afterwards, as they often occaſion violent and mortal hæmorrhages, or diſpoſe her to eruptive and other fevers.

When the labour proves tedious and difficult, to prevent inflammations, it will be proper to bleed. An emollient clyſter ought likewiſe frequently to be adminiſtered; and the paſſage ought to be gently rubbed with a little ſoft pomatum or freſh butter. If nature ſeems to ſink, and the woman is greatly exhauſted with fatigue, a draught of generous wine, or ſome other cordial, may be given, but not otherwiſe. Theſe directions are ſufficient in natural labours; and in all preternatural caſes, a ſkilful ſurgeon or man-midwife, ought to be called as ſoon as poſſible.

After delivery, the woman ought to be kept as quiet and eaſy as poſſible‡. Her food ſhould be light and thin, as gruel, pannado, &c. and her drink weak and diluting. To this rule, there are many exceptions. I have known ſeveral women, whoſe ſpirits could not be ſupported in child-bed without ſolid food and generous li-

* No more attendants ſhould be admitted than are abſolutely neceſſary; and it is to be wiſhed that thoſe would never converſe about labours that have been accompanied with greater danger. Such converſation ſeldom fails to make the patient extremely unhappy, and conſequently impedes the labour. (I. C.)

† Though the management of women in child-bed has been practiſed as an employment ſince the earlieſt accounts of time; yet it is ſtill in moſt countries on a very bad footing. Few women think of following this employment till they are reduced to the neceſſity of doing it for bread. Hence not one in a hundred of them have any education, or proper knowledge of their buſineſs. Moſt women in child-bed require to be managed with ſkill and attention, and they are often hurt by the ſuperſtitious prejudices of ignorant and officious midwives. The miſchief done in this way is much greater than is generally imagined; moſt of which might be prevented by allowing no woman to practiſe midwifery but ſuch as are properly qualified. Were due attention paid to this, it would be the means of ſaving many lives.

‡ We cannot help taking notice of that ridiculous cuſtom which ſtill prevails in ſome parts of the country, of collecting a number of women together upon ſuch occaſions. Theſe, inſtead of being uſeful ſerve only to crowd the houſe, and obſtruct the neceſſary attendants. Beſides, they hurt the patient with their noiſe: and often, by their untimely and impertinent advice, do much miſchief.

quors; to ſuch, a glaſs of wine and a bit of chicken muſt be allowed.

Sometimes an exceſſive hæmorrhage or flooding happens after delivery. In this caſe, the patient ſhould be laid with her head low, kept cool, and be in all reſpects treated as for an exceſſive flux of the menſes. If the flooding proves violent, linen cloths, which have been wrung out of a mixture of equal parts of vinegar and water, or red wine, ſhould be applied to the belly, the loins, and the thighs: theſe muſt be changed as they grow dry; and may be diſcontinued as ſoon as the flooding abates*.

If there be violent pains after delivery†, the patient ought to drink plentifully of warm diluting liquors, as groat-gruel, or tea with a little ſaffron in it; and to take ſmall broths, with carraway ſeeds, or a bit of orange-peel in them; an ounce of the oil of ſweet almonds may likewiſe be frequently taken in a cup of any of the above liquors; and if the patient be hot or feveriſh, one of the following powders may be taken in a cup of her uſual drink every five or ſix hours‡.

An inflammation of the womb is a dangerous and not unfrequent diſeaſe after delivery. It is known by pains in the lower part of the belly, which are greatly increaſed upon touching; by the tenſion or tightneſs of the parts; great weakneſs; change of countenance; a conſtant fever, with a weak and hard pulſe; a ſlight delirium or raving; ſometimes inceſſant vomitting; a hiccup; a diſcharge of reddiſh, fœtid, ſharp water from the womb; an inclination to go frequently to ſtool; a heat, and ſometimes total ſuppreſſion of urine.

This muſt be treated like other inflammatory diſorders, by bleeding and plentiful dilution. The drink may be thin gruel or barley-water; in a cup of which half a drachm of nitre may be diſſolved, and taken three or four times a-day. Clyſters of warm milk and water muſt be frequently adminiſtered; and the belly ſhould be fomented by cloths wrung out of warm water, or by applying bladders filled with warm milk and water to it.

A ſuppreſſion of the *lochia*, or uſual diſcharges after delivery,

* In a violent flooding after delivery, I have ſeen very good effects from the following mixture: Take of penny-royal water, ſimple cinnamon-water, and ſyrrup of poppies, each two ounces, elixir of vitriol a drachm. Mix and take two table-ſpoonfuls every two hours, or oftner, if neceſſary.

† One grain or more of opium ſhould be adminiſtered. (I. C.)

‡ Take of crabs claws prepared, half an ounce, purified nitre, two drachms, ſaffron powdered, half a drachm; rub them together in a mortar, and divide the whole into eight or nine doſes.

When the patient is low-ſpirited, or troubled with hyſterical complaints, ſhe ought to take frequently twelve or fifteen drops of the tincture of aſafœtida in a cup of penny-royal tea.

and the milk-fever, muſt be treated nearly in the ſame manner as an inflammation of the womb. In all theſe caſes, the ſafeſt courſe is plentiful dilution; gentle evacuations, and fomentations of the parts affected. In the milk-fever, the breaſts may be embrocated with a little warm linſeed-oil, or the leaves of red cabbage may be applied to them. The child ſhould be often put to the breaſt, or it ſhould be drawn by ſome other perſon.

Nothing would tend more to prevent the milk-fever, than putting the child early to the breaſt. The cuſtom of not allowing children to ſuck for the firſt two or three days, is contrary to Nature and common ſenſe, and is very hurtful both to the mother and child.

Every mother who has milk in her breaſts, ought either to ſuckle her own child, or to have her breaſts frequently drawn, at leaſt for the firſt month. This would prevent many of the diſeaſes which prove fatal to women in child-bed.

When an inflammation happens in the breaſt, attended with redneſs, hardneſs, and other ſymptoms of ſuppuration, the ſafeſt application is a poultice of bread and milk, ſoftened with oil or freſh-butter. This may be renewed twice a-day, till the tumour be either diſcuſſed or brought to ſuppuration. The uſe of repellents, in this caſe, is very dangerous; they often occaſion fevers, and ſometimes cancers; whereas a ſuppuration is ſeldom attended with any danger, and has often the moſt ſalutary effects.

When the nipples are fretted or chapt, they may be anointed with a mixture of oil and bees' wax, or a little powdered gum-arabic may be ſprinkled on them. I have ſeen Hungary-water, applied to the nipples, have a very good effect. Should the complaint prove obſtinate, a cooling purge may be given, which generally removes it.

The miliary fever is a diſeaſe incident to women in child-bed. Hoffman obſerves, that this fever of child-bed women might generally be prevented, if they, during their pregnancy, were regular in their diet, uſed moderate exerciſe, took now and then a gentle laxative of manna, caſtor-oil, or cream of tartar; not forgetting to bleed in the firſt months, and avoid all ſharp air. When the labour is coming on, it is not to be haſtened with forcing medicines, which inflame the blood and humours, or put them into unnatural commotions. Care ſhould be taken, after the birth, that the natural excretions proceed regularly; and if the pulſe be quick, a little nitrous powder, or ſome other cooling medicines, ſhould be given.

The moſt fatal diſorder conſequent upon delivery, is the *puerperal*, or child-bed fever. It generally makes its attack upon the ſecond or third day after delivery. Sometimes indeed, it comes on ſooner, and at other times, though rarely, it does not appear before the fifth or ſixth day.

It begins, like moſt other fevers, with a cold or ſhivering fit,

which is ſucceeded by reſtleſſneſs, pain of the head, great ſickneſs at ſtomach, and bilious vomiting. The pulſe is generally quick, the tongue dry, and there is a remarkable depreſſion of ſpirits and loſs of ſtrength. A great pain is uſually felt in the back, hips, and region of the womb; a ſudden change in the quantity or quality of the *lochia* alſo takes place; and the patient is frequently troubled with a *teneſmus*, or conſtant inclination to go to ſtool. The urine, which is very high-coloured, is diſcharged in ſmall quantity, and generally with pain. The belly ſometimes ſwells to a conſiderable bulk, and becomes ſuſceptible of pain from the ſlighteſt touch. When the fever has continued for a few days, the ſymptoms of inflammation uſually ſubſide, and the diſeaſe acquires a more putrid form. At this period, if not ſooner, a bilious or putrid looſeneſs, of an obſtinate and dangerous nature, comes on, and accompanies the diſeaſe through all its future progreſs.

No diſeaſe requires to be treated with more ſkill and attention than this; conſequently, the beſt aſſiſtance ought always to be obtained as ſoon as poſſible. In women of plethoric conſtitutions, bleeding will generally be proper at the beginning; it ought, however, to be uſed with caution, and not to be repeated, unleſs where the ſigns of inflammation riſe high; in which caſe, it will alſo be neceſſary to apply a bliſter to the region of the womb.

During the rigour, or cold fit, proper means ſhould be uſed to abate its violence, and ſhorten its duration. For this purpoſe, the patient may drink freely of warm diluting liquors, and, if low, may take now and then a cup of wine-whey; warm applications to the extremities, as heated bricks, bottles or bladders filled with warm water, and ſuch-like, may alſo be uſed with advantage.

Emollient clyſters of milk and water, or of chicken water, ought to be frequently adminiſtered through the courſe of the diſeaſe.—Theſe prove beneficial by promoting a diſcharge from the inteſtines, and alſo by acting as a kindly fomentation to the womb and parts adjacent. Great care however is requiſite in giving them, on account of the tenderneſs of the parts in the *pelvis* at this time.

To evacuate the offending bile from the ſtomach, a vomit is generally given. But as this is apt to increaſe the irritability of the ſtomach, already too great, it will be ſafer to omit it, and to give in its ſtead, a gentle laxative, which will both tend to cool the body, and to procure a free diſcharge of the bile.

The medicine which I have always found to ſucceed beſt in this diſeaſe, is the ſaline draught. This, if frequently repeated, will often put a ſtop to the vomiting, and, at the ſame time, leſſen the violence of the fever. If it runs off by ſtool, or if the patient be reſtleſs, a few drops of laudanum, or ſome ſyrup of poppies, may occaſionally be added.

If the ſtools ſhould prove ſo frequent as to weaken and exhauſt the patient, a ſtarch clyſter, with thirty or forty drops of laudanum in it, may be adminiſtered as occaſion ſhall require; and the drink

may be rice-water, in every Engliſh pint of which half an ounce of gumarabic has been diſſolved. Should theſe fail, recourſe muſt be had to Columbo-root, or ſome other ſtrong aſtringent.

Though in general the food ought to be light, and the drink diluting, yet when the diſeaſe has been long protracted, and the patient is greatly ſpent by evacuations, it will be neceſſary to ſupport her with nouriſhing diet and generous cordials.

It was obſerved, that this fever, after continuing for ſome time, often acquires a putrid form. In this caſe, the bark muſt be given, either by itſelf, or joined with cordials, as circumſtances may require. As the bark in ſubſtance will be apt to purge, it may be given in decoction or infuſion, mixed with the tincture of roſes, or other gentle aſtringents; or, a ſcruple of the extract of bark with half an ounce of ſpirituous cinnamon-water, two ounces of common water, and ten drops of laudanum, may be made into a draught, and given every ſecond, third, or fourth hour, as ſhall be found neceſſary.

When the ſtomach will not bear any kind of nouriſhment, the patient may be ſupported for ſome time, by clyſters of beef-tea, or chicken-water.

To avoid this fever, every woman in child-bed ought to be kept perfectly eaſy; her food ſhould be light and ſimple, and her bed-chamber cool, and properly ventilated. Nothing is more hurtful than being kept too warm. She ought not to have her body bound too tight, nor riſe too ſoon from bed after delivery; catching cold is alſo to be avoided; and a proper attention ſhould be paid to cleanlineſs.

To prevent the milk-fever, the breaſts ought to be frequently drawn; and if they are filled previous to the onſet of a fever, they ſhould, upon its firſt appearance, be drawn to prevent the milk from becoming acrid, and its being abſorbed in this ſtate. Coſtiveneſs is to be avoided. This will be beſt effected by the uſe of mild clyſters and a laxative diet.

We ſhall conclude on child-bed women, by recommending it to them, above all things, to beware of cold. Poor women, whoſe circumſtances oblige them to quit their bed too ſoon, often contract diſeaſes from cold, of which they never recover. It is a pity the poor are not better taken care of in this ſituation.

But the better ſort of women run the greateſt hazard from too much heat. They are generally kept in a ſort of a bagnio for the firſt eight or ten days, and then dreſſed out to ſee company. The danger of this conduct muſt be obvious to every one.

The ſuperſtitious and contemptible cuſtom of obliging women to keep the houſe till they go to church, is a very common cauſe of catching cold. All churches are damp, and moſt of them cold; conſequently they are the very worſt places to which a woman can go to make her firſt viſit, after having been confined in a warm room for a month.

## *Of Barrenneſs.*

BARRENNESS may be very properly reckoned among the diſeaſes of females, as few married women who have not children enjoy a good ſtate of health. It may proceed from various cauſes, as high-living, grief, relaxation, &c. but it is chiefly owing to an obſtruction or irregularity of the menſtrual flux.

It is very certain that high living prevents fecundity. We ſeldom find a barren woman among the labouring poor, while nothing is more common among the rich and affluent. The inhabitants of every country are prolific in proportion to their poverty; and it would be an eaſy matter to adduce many inſtances of women, who, by being reduced to live entirely upon a milk and vegetable diet, have conceived and brought forth children, though they never had any before. Would the rich uſe the ſame ſort of food and exerciſe as the better ſort of peaſants, they would ſeldom have cauſe to envy their poor vaſſals and dependants the bleſſing of a numerous and healthy offspring, while they pine in ſorrow for the want of even a ſingle heir to their extenſive domains.

Affluence begets indolence, which induces a general relaxation of the ſolids; a ſtate highly unfavourable to procreation. To remove this, we would recommend the following courſe: Firſt, ſufficient exerciſe in the open air; ſecondly, a diet conſiſting chiefly of milk and vegetables*; thirdly, the uſe of aſtringent medicines, as ſteel, allum, dragon's blood, elixir of vitriol, the Spaw or Tunbridge waters, Peruvian bark, &c.; and laſtly, above all, the cold bath.

Barrenneſs is often the conſequence of grief, ſudden fear, anxiety, or any of the paſſions which tend to obſtruct the menſtrual flux. When barrenneſs is ſuſpected to proceed from affections of the mind, the perſon ought to be kept as eaſy and cheerful as poſſible; all diſagreeable objects are to be avoided, and every method taken to amuſe and entertain the fancy.

* Dr. Cheyne avers, that want of children is oftner the fault of the male than of the female, and ſtrongly recommends a milk and vegetable diet to the former as well as the latter; adding, that his friend Dr. Taylor, whom he calls the Milk-doctor of Croydon, had brought ſundry opulent families in his neighbourhood, who had continued ſome years after marriage without progeny, to have ſeveral fine children, by keeping both parents, for a conſiderable time, to a milk and vegetable diet.

# CHAPTER LI.

## *Diſeaſes of Children.*

MAN comes into the world more helpleſs than any other animal, and ſtands much longer in need of the protection and care of his parents; but this care is not always beſtowed upon him; and when it is, he often ſuffers as much from improper management as he would have done from neglect. The officious care of parents, nurſes, and midwives, becomes one of the moſt fruitful ſources of the diſorders of infants*.

It muſt be obvious to every attentive perſon, that the firſt diſeaſes of infants ariſe chiefly from their bowels. Nor is this in the leaſt to be wondered at, as they are in a manner poiſoned with indigeſtible drugs and improper diet, as ſoon as they come into the world. Every thing that the ſtomach cannot digeſt may be conſidered as a poiſon; and unleſs thrown up, or avoided by ſtool, it muſt occaſion ſickneſs, gripes, ſpaſmodic affections of the bowels, or what the women call inward fits, and at laſt convulſions and death.

As theſe ſymptoms evidently ariſe from ſomewhat that irritates the inteſtines, doubtleſs the proper method of cure muſt be to expel it as ſoon as poſſible. The moſt ſafe and effectual method of doing this is by gentle vomits. Five or ſix grains of the powder of ipecacuanha may be mixed in two table-ſpoonfuls of water, and ſweetened with a little ſugar. A tea-ſpoonful of this may be given to the infant every quarter of an hour till it operates.

This medicine will not only cleanſe the ſtomach, but will generally likewiſe open the body. Should this however not happen, and if the child be coſtive, ſome gentle purge will be neceſſary: for this purpoſe, ſome manna and pulp of caſſia may be diſſolved in boiling water, and given in ſmall quantities till it operates; or, what will anſwer rather better, a few grains of *magneſia alba* may be mixed in any kind of food that is given to the child, and continued till it has the deſired effect. If theſe medicines be properly adminiſtered, and the child's belly and limbs frequently rubbed with a warm hand before the fire, they will ſeldom fail to relieve thoſe affec-

* Of the officious and ill-judged care of midwives, we ſhall adduce only one inſtance, viz. the common practice of torturing infants by ſqueezing their breaſts, to draw off the milk, as they call it. Though a ſmall quantity of moiſture is generally found in the breaſts of infants, yet, as they are certainly not intended to give ſuck, this ought never to be drawn off. I have ſeen this cruel operation bring on hardneſs, inflammation, and ſuppuration of the breaſts; but never knew any ill conſequences from its being omitted. When the breaſts are hard, the only application that we would recommend, is a ſoft poultice, or a little of the diachylon plaiſter, ſpread thin upon a bit of ſoft leather, about the ſize of half a crown, and applied over each nipple. Theſe may be ſuffered to continue till the hardneſs diſappears.

tions of the ſtomach and bowels from which infants ſuffer ſo much.

Theſe general directions include moſt of what can be done for relieving the internal diſorders of infants. They will likewiſe go a conſiderable way in alleviating thoſe which appear externally, as the raſh, *gum*, &c. Theſe, as was formerly obſerved, are principally owing to too hot a regimen, and conſequently will be moſt commonly relieved by gentle evacuations. Indeed, evacuations of one kind or other conſtitute a principal part of the medicine of infants, and will ſeldom, if adminiſtered with prudence, in any of their diſeaſes, fail to give relief.

## *Of the Meconium.*

THE ſtomach and bowels of a new-born infant are filled with a blackiſh coloured matter of the conſiſtence of ſyrup, commonly called the *meconium*. This is generally paſſed ſoon after the birth, by the mere effort of Nature; in which caſe it is not neceſſary to give the infant any kind of medicine. But if it ſhould be retained, or not ſufficiently carried off, a little manna or *magneſia alba* may be given, or, if theſe ſhould not be at hand, a common ſpoonful of whey, ſweetened with a little honey, or raw ſugar will anſwer the purpoſe.

The moſt proper medicine for expelling the *meconium* is the mother's milk, which is always at firſt of a purgative quality. Were children allowed to ſuck as ſoon as they ſhew an inclination for the breaſt, they would ſeldom have occaſion for medicines to diſcharge the *meconium*; but even where this is not allowed, they ought never to have daubs of ſyrup, oils, and other indigeſtible ſtuff, crammed down their throats.

## *The Aphthæ or Thruſh.*

THE aphthæ are little whitiſh ulcers affecting the whole inſide of the mouth, tongue, throat, and ſtomach of infants. Sometimes they reach through the whole inteſtinal canal; in which caſe, they are very dangerous, and often put an end to the infant's life.

If the aphthæ are of a pale colour, pellucid, few in number, ſoft, ſuperficial, and fall eaſily off, they are not dangerous; but if opake, yellow, brown, black, thick, or running together, they ought to be dreaded.

It is generally thought that the aphthæ owe their origin to acid humours; but they are frequently owing to too hot a regimen both

of the mother and child. It is a rare thing to find a child who is not doſed with wine, punch, cinnamon-waters, or ſome other hot and inflaming liquors, almoſt as ſoon as it is born. Theſe will occaſion inflammatory diſorders even in adults; is it any wonder then that they ſhould heat and inflame the tender bodies of infants?

The moſt proper medicines for the aphthæ are vomits, ſuch as have been already recommended, and gentle laxatives. One drachm of *magneſia alba* may be divided into ſix doſes, one of which may be given to the infant every four or five hours till they operate. Theſe powders may either be given in the child's food, or a little of the ſyrup of pale roſes, and may be repeated as often as is found neceſſary to keep the body open. It is common in this caſe to adminiſter calomel; but as that medicine ſometimes occaſions gripes, it ought always to be given to infants with caution.

Many thing have been recommended for gargling the mouth and throat in this diſeaſe; but it is not eaſy to apply theſe in very young infants; we recommend it to the nurſe to rub the child's mouth frequently with a little borax and honey; or with the following mixture: Take fine honey an ounce, borax a drachm, burnt alum half a drachm, roſe-water two drachms; mix them together. A very proper application in this caſe, is a ſolution of ten or twelve grains of white vitriol in eight ounces of barley-water. Theſe may be applied with the finger, or by means of a bit of ſoft rag tied to the end of a probe.

## *Of Acidities.*

THE food of children being for the moſt part of an acecſcent nature, it readily turns ſour upon the ſtomach, eſpecially if the body be any way diſordered. Hence moſt diſeaſes of children are accompanied with evident ſigns of acidity, as green ſtools, gripes, &c. Theſe appearances induce many to believe, that all the diſeaſes of children are owing to an acid abounding in the ſtomach and bowels; but whoever conſiders the matter attentively, will find that theſe ſymptoms of acidity are oftener the effect than the cauſe of their diſeaſes.

Nature evidently intended, that the food of children ſhould be acecſcent; and unleſs the body be diſordered, or the digeſtion hurt, from ſome other cauſe, we will venture to ſay, that the acecſcent quality of their food is ſeldom injurious to them. Acidity, however, is often a ſymptom of diſorders in children, and, as it is ſometimes a troubleſome one, we ſhall point out the method of relieving it.

When green ſtools, gripes, purgings, ſour ſmells, &c. ſhew that the bowels abound with an acid, the child ſhould have a little ſmall broth, with light white bread in it; and ſufficient exerciſe to promote the digeſtion. It has been cuſtomary in this caſe to give the

pearl-julep, chalk, crabs eyes, and other teſtaceous powders. Theſe, by their abſorbent quality, may correct the acidity; but they are apt to lodge in the bowels, and occaſion coſtiveneſs, which may prove very hurtful to the infant. For this reaſon, they ſhould never be given unleſs mixed with purgative medicines; as rhubarb, manna, or ſuch like.

The beſt medicine which we know, in all caſes of acidity, is the powder of *magneſia alba*. It purges, and at the ſame time corrects the acidity: by which means it not only removes the diſeaſe, but carries off its cauſe. It may be given in any kind of food, or in a mixture.

When an infant is troubled with gripes, it ought not at firſt to be doſed with brandy, ſpiceries, and other hot things, but ſhould have its body opened with an emollient clyſter, or the medicine mentioned above; and at the ſame time, a little brandy may be rubbed on its belly with a warm hand before the fire. I have ſeldom ſeen this fail to eaſe the gripes of infants. If it ſhould happen, however, not to ſucceed, a little brandy or other ſpirits may be mixed with thrice the quantity of warm water, and a tea-ſpoonful given frequently till the infant be eaſier. Sometimes a little pepper-mint-water will anſwer this purpoſe very well.

## *Galling and Excoriation.*

THESE are very troubleſome to children. They happen chiefly about the groin and wrinkles of the neck, under the arms, behind the ears, and in other parts that are moiſtened by the ſweat or urine.

As theſe complaints are, in a great meaſure, owing to want of cleanlineſs, the moſt effectual means of preventing them are, to waſh the parts frequently with cold water, to change the linen often, and, in a word, to keep the child in all reſpects thoroughly clean. When this is not ſufficient, the excoriated parts may be ſprinkled with abſorbent or drying powders, ſuch as powdered ſtarch, burnt hartſhorn, tutty, chalk, crabs' claws prepared, and the like. When the parts affected are very ſore, and tend to a real ulceration, add a little ſugar of lead to the powders; or anoint the place with camphorated ointment. If the parts be waſhed with ſpring-water, in which a little white vitriol has been diſſolved, it will dry and heal them very powerfully. One of the beſt applications for this purpoſe, is to diſſolve ſome fuller's earth in a ſufficient quantity of hot water; and after it has ſtood till it is cold, to rub it gently upon the galled parts once or twice a-day.

## *Stoppage of the Nose.*

THE noſtrils of infants are often plugged up with a groſs *mucus*, which prevents their breathing freely, and likewiſe renders it difficult for them to ſuck or ſwallow.

Some, in this caſe, order, after a ſuitable purge, two or three grains of white vitriol diſſolved in half an ounce of marjoram-water, and filtered, to be applied now and then to the noſtrils with a linen rag. Wedelius ſays, if two grains of white vitriol, and the ſame quantity of *elaterium*, be diſſolved in half an ounce of marjoram-water, and applied to the noſe, as above directed, that it brings away the *mucus* without ſneezing.

In obſtinate caſes, theſe things may be tried; but I have never found any thing neceſſary, beſides rubbing the noſe at bed-time with a little ſweet oil, or freſh butter. This reſolves the filth, and renders the breathing more free.

## *Of Vomiting.*

FROM the delicate ſtate of children, and the great ſenſibility of their organs, a vomiting or looſeneſs may be induced by any thing that irritates the nerves of the ſtomach or inteſtines. Hence, theſe diſorders are much more common in childhood than in the more advanced periods of life. They are ſeldom however dangerous, and ought never to be conſidered as diſeaſes, unleſs when they are violent, or continue ſo long as to exhauſt the ſtrength of the patient.

Vomiting may be excited by an over-quantity of food; by food that is of ſuch a nature as to irritate the nerves of the ſtomach too much; or by the ſenſibility of the nerves being ſo much increaſed as to render them unable to bear the ſtimulus of even the mildeſt element.

When vomiting is occaſioned by too much food, it ought to be promoted, as the cure will depend upon cleanſing the ſtomach. This may be done either by a few grains of ipecacuanha, or a few drops of antimonial wine. When it is owing to food of an acrid or irritating quality, the diet ought to be changed, and aliment of a milder nature ſubſtituted in its ſtead.

When vomiting proceeds from an increaſed degree of ſenſibility, or too great an irritability of the nerves of the ſtomach, ſuch medicines as have a tendency to brace and ſtrengthen that organ, and abate its ſenſibility, muſt be uſed. The firſt of theſe intentions may be anſwered by a ſlight infuſion of the Peruvian bark, with the addition of a little rhubarb and orange-peel; and the ſecond

by the ſaline draughts, to which a few drops of liquid laudanum may be occaſionally added.

In obſtinate vomitings, the operation of internal medicines may be aſſiſted by aromatic fomentations made with wine, applied warm to the pit of the ſtomach; or the uſe of the ſtomach-plaiſter, with the addition of a little *theriaca*.

## *Of a Looſeneſs.*

A LOOSENESS may generally be reckoned ſalutary when the ſtools are ſour, ſlimy, green, or curdled. It is not the diſcharge, but the production of ſuch ſtools, which ought to be remedied. Even where the purging is thin and watery, it ought not to be checked too ſuddenly, as it often proves critical, eſpecially when the child has caught cold, or an eruption on the ſkin has diſappeared. Sometimes an evacuation of this kind ſucceeds a humid ſtate of the atmoſphere, in which caſe it may alſo prove of advantage, by carrying off a quantity of watery humours, which would otherwiſe tend to relax the habit.

As the principal intention of the cure of a looſeneſs is to evacuate the offending matter, it is cuſtomary to give the patient a gentle vomit of ipecacuanha, and afterwards to exhibit ſmall and frequent doſes of rhubarb; interpoſing abſorbent medicines, to mitigate the acrimony of the humours. The beſt purge in this caſe, is *magneſia alba*. It is abſorbent and laxative, and operates without exciting gripes.

The antimonial wine, which acts both as an emetic and purge, is alſo an excellent medicine in this caſe. By being diluted with water, it may be proportioned to the weakeſt conſtitution; and, not being diſagreeable to the palate, it may be repeated as often as occaſion requires. Even one doſe will frequently mitigate the diſeaſe, and pave the way for the uſe of abſorbents. If the patient's ſtrength will permit, the medicine ought to be repeated every ſix or eight hours, till the ſtools begin to aſſume a more natural appearance; afterwards a longer ſpace may be allowed to intervene between the doſes. When it is neceſſary to repeat the medicine frequently, the doſe ought always to be a little increaſed, as its efficacy is generally diminiſhed by uſe.

Some upon the firſt appearance of a looſeneſs, fly to abſorbent medicines and aſtringents. If theſe be adminiſtered before the offending humours are diſcharged, though the diſeaſe may appear to be mitigated for a little time, it ſoon afterwards breaks forth with greater violence, and often proves fatal. After proper evacuations, however, theſe medicines may be adminiſtered with conſiderable advantage.

Should any gripings or reſtleſsneſs remain after the ſtomach and bowels have been cleanſed, a tea-ſpoonful of the ſyrup of poppies may be given in a little ſimple cinnamon-water, three or four times a-day till theſe ſymptoms have ceaſed.

## *Of the Vomiting and Purging of Children.*

THIS diſeaſe is nearly the ſame which occurs in grown people. It is produced by the like cauſes, and requires a ſimilar method of cure.

It frequently appears in the month of June, but becomes more frequent in July, Auguſt and September, when the weather is very warm, or ſoon after there has been a ſudden change to cool weather, attended with a north-eaſt wind. The latter often takes place during the ſummer months in North-America.

In a ſhort time after this change, and not unfrequently in the courſe of one night, a number of children are taken down with this diſeaſe.

But the diſeaſe often occurs, independent of this change, when the weather is very warm, and it is generally brought on by overcharging the ſtomach with food, which, either from its quality, or quantity, and ſometimes from both, irritates the ſtomach, and produces violent vomiting and purging.

Children are affected with this diſeaſe, from an early period in life, until they are two or three years old; but it more eſpecially exerts its deſtructive influence on the children of cities, and ſeldom affects thoſe who reſide in the country.

It moſt frequently comes on in the evening, or early in the morning; when the patient is uſually ſeized of a ſudden with violent vomiting. This is ſoon ſucceeded by purging, accompanied with a fever generally of the remitting kind. The matter diſcharged in this ſtage of the diſeaſe, is generally of a green or yellow colour, large in quantity, but ſometimes the ſtools aſſume the appearance of thoſe evacuated in a dyſentery, or flux, and attended with much griping. Towards evening the ſymptoms generally increaſe. The vomiting and purging are conſiderably augmented, with an evident exacerbation of fever. This is attended with head-ach, reſtleſſneſs, retraction of the navel, great thirſt, a quick and feeble pulſe, the countenance flushed, particularly during a fit of vomiting, when the patient is in a profuſe perſpiration, and the ſkin feels cool and clammy. Every morning the ſymptoms ſuffer ſome abatement. As the diſeaſe advances, the patient becomes more exhauſted, and has a general appearance of emaciation. The vomiting or purging ſometimes ceaſes, but generally both continue. The ſtools become leſs copious, very fœtid, and frequently of a water colour. The pulſe is generally irregular and feeble, the eyes languid, and they appear to

be ſunk in their orbits. There is alſo a ſwelling in the feet and legs. The breathing bocomes difficult; the patient drowſy and inſenſible. The voice undergoes a conſiderable alteration. Delerium, difficulty in breathing, extremities, cold, eyes glaſſy, and at length convulſions follow, till death concludes the ſcene.

This is generally the progreſs of the diſeaſe, when it terminates in death, but it is ſometimes protracted to an uncommon period. This is the caſe when the ſymptoms are more moderate, or have been interrupted by a ſhort continuance of cool weather. But at laſt they return with increaſing violence. The patient becomes exceſſively extenuated. The ſwelling of the limbs and belly increaſe with livid ſpots on the ſkin. There is a hectic bluſh on the cheeks, during the exacerbation of fever, and the diſeaſe is frequently accompanied with a ſore mouth, which almoſt always precedes the diſſolution of the patient.

MEDICINE.——The cure of this diſeaſe can generally be effected, if aſſiſtance is called early. The firſt ſtep ſhould be to evacuate the offending matter from the ſtomach and bowels, particularly if the patient is not much exhauſted, and if we have reaſon to believe that the irritating matter is not diſcharged. This ſhould be accompliſhed by ordering the patient to drink large quantities of warm water, or warm tea of any kind. But when this cannot be complied with, a few grains of ipecacuanha may be adminiſtered, which will empty the ſtomach, and clear the bowels. Should it not have the latter effect, caſtor-oil, calomel, or magneſia may be given. When the ſtomach refuſes thoſe medicines, clyſters may be employed with advantage.

When the irritating matter has been evacuated, either by the natural efforts of the ſyſtem, or by art, the vomiting muſt be reſtrained by giving ten or fifteen drops of laudanum, or in quantities proportioned to the age of the patient. The laudanum ſhould be mixed in mint tea, or cinnamon water. The former, or toaſt and water, ſhould be the conſtant drink. This medicine will have the deſired effect, and mitigate pain. When the vomiting is with difficulty reſtrained, flannels rung out of aromatics infuſed in brandy, muſt be conſtantly applied warm to the ſtomach. Where theſe fail, a bliſter applied to the region of the ſtomach, has ſometimes the moſt happy effect.

After the diſeaſe has ſubſided, the body muſt be invigorated by ſtimulants and tonics. The drink muſt be wine and water, or brandy and water, the latter having the addition of ſugar. The patient ſhould alſo take one tea-ſpoonful, or half a table-ſpoonful of a light infuſion of bark, with aromatics once in every two or three hours. The food muſt be light and nouriſhing, as ſago, or gruel. Beef ſteaks, or almoſt any animal food, may be taken in ſmall quantities.

The patient ſhould reſide in the country, and ride every day. This tends much to reſtore the health. Nay, when every other re-

medy has failed, a change of air and exercise has entirely removed the disease. When it is not convenient for the patient to ride out, he may be carried into the country during the most agreeable part of the day.

The best way to prevent this disease, is for children, when at the age liable to it, to reside, during the summer months, in the country, to avoid every excess in eating, and to be cautious to accommodate their dress to every change of weather.

## *Of Eruptions.*

CHILDREN, while on the breast, are seldom free from eruptions of one kind or other. These are not often dangerous, and ought never to be dried up, but with the greatest caution. They tend to free the bodies of infants from hurtful humours, which, if retained, might produce fatal disorders.

The eruptions of children are chiefly owing to improper food and neglect of cleanliness. If a child be stuffed at all hours, with food that its stomach is not able to digest, such food, not being properly assimilated, instead of nourishing the body, fills it with gross humours. These must either break out in form of eruptions upon the skin, or remain in the body, and occasion fevers and other internal disorders. Neglect of cleanliness is a very general cause of eruptive disorders. The children of the poor, and of all who despise cleanliness, are almost constantly found to swarm with vermin, and are generally covered with a scab, itch, and other eruptions.

When eruptions are the effect of improper food, or want of cleanliness, a proper attention to these alone, will generally be sufficient to remove them. If this should not be the case, some drying medicines will be necessary. When they are applied, the body ought, at the same time, to be kept open, and cold is carefully to be avoided. No medicine is more safe for drying up cutaneous eruptions than sulphur, provided it be prudently used. A little of the flour of sulphur may be mixed with fresh butter, or hog's lard, and the parts affected frequently touched with it.

The most obstinate of all the eruptions incident to children are, the *tinea capitis*, or scabbed head, and chilblains. The scabbed head is often exceeding difficult to cure, and sometimes indeed the cure proves worse than the disease. I have frequently known children seized with internal disorders, of which they died, soon after their scabbed heads had been healed, by the application of drying medicines*. The cure ought always first to be attempted, by keeping

* I some time ago saw a very striking instance of the danger of substituting drying medicines in the place of cleanliness and wholesome food,

the head very clean, cutting off the hair, combing and brushing away the scabs, &c. If this is not sufficient, let the head be shaved once a-week, washed daily with soap-suds, and gently anointed with a liniment made of train-oil, eight ounces, red precipitate, in fine powder, one drachm. And if there be proud flesh, it should be touched with a bit of blue vitriol, sprinkled with a little burnt allum. While these things are doing, the patient must be confined to a regular light diet, the body should be kept gently open; and cold, as far as possible, ought to be avoided. To prevent bad consequences from stopping this discharge, it will be proper, especially in children of a gross habit, to make an issue in the neck or arm, which may be kept open till the patient becomes more strong, and the constitution be somewhat mended.

Chilblains commonly attack children in cold weather. They are generally occasioned by the feet or hands being kept long wet or cold, and afterwards suddenly heated. When children are cold, instead of taking exercise to warm themselves gradually, they run to the fire.

To prevent this disease, violent cold and sudden heat must be equally avoided. When the parts begin to look red and swell, the patient ought to be purged, and have the affected parts frequently rubbed with mustard and brandy, or something of a warming nature. They ought likewise to be covered with flannel, and kept warm and dry. Some apply warm ashes between cloths to the swelled parts, which frequently help to reduce them. When there is a sore, it must be dressed with Turner's cerate, the ointment of tutty, the plaister of cerus, or some other drying ointment. These sores are indeed troublesome, but seldom dangerous. They generally heal as soon as the warm weather sets in.

## *Of the Hives.*

THIS disease in Scotland is called the croup, but in America it is best known by the name of hives. It may be divided into two kinds, the humid and spasmodic. The former is the present sub-

in the foundling hospital as Ackworth, where the children were grievously afflicted with scabbed heads and other cutaneous disorders. Upon inquiry, it was found, that very little attention was paid either to the propriety or soundness of their provisions, and that cleanliness was totally neglected; accordingly, it was advised, that they should have more wholesome food, and be kept thoroughly clean. This advice, however, was not followed. It was too troublesome to the servants, superintendants, &c. The business was to be done by medicine; which was accordingly attempted, but had nearly proved fatal to the whole house. Fevers and other internal disorders immediately appeared; at length, a putrid dysentery, which proved so infectious, that it carried off a great many of the children, and spread over a considerable part of the neighbouring country.

ject of conſideration, and may be known by a peculiar croaking ſound of the voice, like the barking of a dog, or, by ſome, compared to the crowing of a cock, attended with a difficulty of breathing.

This diſeaſe generally affects children under nine years of age, but no age is exempt from its violence. It generally ſeizes children during foggy weather, or early in the ſpring when damp weather ſucceeds the winter cold.

SYMPTOMS.——It comes on gradually; the patient is obſerved to loſe his uſual gaiety, and ſymptoms of fever appear, with defective appetite, attended by a ſlight difficulty of breathing; a dry, ſhort cough with hoarſeneſs, and the bowels are generally coſtive. The countenance appears heavy, and indicates diſtreſs. The breathing becomes quick and interrupted, and a peculiar croaking ſound of the voice is heard, particularly when the patient attempts to cough, at which time the face appears highly flushed and almoſt livid. The carotid and temporal ar-arteries throb greatly. The pulſe is ſometimes hard, and generally quick. As the diſeaſe advances, the patient becomes very reſtleſs. The breathing is more interrupted and laborious, with a rattling of phlegm in the throat. The noſtrils expand and contract, the ſhoulders are ſtrongly elevated at every inſpiration, and the cheeks diſtended with air at every expiration, accompanied with great anxiety and ſenſe of ſuffocation. The pulſe becomes extremely feeble; ſkin clammy; the extremities cold and livid. At length the patient is exhauſted and dies.

MEDICINE.——In the cure of this diſeaſe, if the pulſe is full and hard, blood ſhould be taken from the arm or jugular vein, but the moſt promiſing effects are to be expected from large doſes of calomel. Eight or ten grains of this medicine ſhould be early adminiſtered, combined with as many of jalap, according to the age of the patient, in order to produce copious evacuations; after which, if the ſymptoms ſhould not ſubſide, the patient muſt be vomited with tartar emetic or ipecacuanha, and the calomel ſhould be repeated. Bliſters muſt be applied to the fore part of the neck. Theſe remedies ſhould be continued until the ſymptoms diſappear. The patient's ſtrength ſhould then be reſtored, by nouriſhing diet and tonic medicines, ſuch as bark, ſteel, cold bathing, aſſiſted by exerciſe.

## *Spaſmodic Hives.*

THIS diſeaſe bears ſome reſemblance to the preceding, in affecting children under ſimilar circumſtances, but differing in its manner of attack. It moſt generally comes on of a ſudden during

the heat of the day, without any apparent previous indiſpoſition; or in the courſe of the evening, when children frequently awake from their ſleep with hoarſeneſs, ſlight cough, and great difficulty in breathing, which obliges them to aſſume an erect poſture, for fear of ſuffocation. The face is generally flushed, and its being diſtorted, exhibits ſtrong ſigns of anxiety and diſtreſs. Theſe ſymptoms are accompanied with a peculiar croaking tone of the voice in coughing; full and quick pulſe, with an increaſe of heat; conſiderable thirſt; and, towards the cloſe of the diſeaſe, a rattling of phlegm may be heard in the throat. The breathing becomes more interrupted and laborious, with a ſtrong elevation of the ſhoulder at every inſpiration; great reſtleſſneſs; pulſe quick, and extremely feeble; the extremities become cold, and every hope of recovery ſoon vaniſhes.

This is the progreſs of the diſeaſe when it terminates in death, which generally takes place on or before the third day. But ſometimes its attack is moderate, and only laſts a few hours, and returns again the following evening. The ſeat of this complaint appears to be in the muſcles ſurrounding the larynx, or upper part of the wind-pipe, which are no doubt violently and ſometimes permanently affected with ſpaſm, which ſtrongly points out the propriety of the following mode of relief. If the pulſe is full and hard, blood muſt be taken from the arm or jugular vein, and the patient immediately put into the warm bath, or the feet and legs bathed in warm water. Should the ſymptoms not ſubſide, a bliſter muſt be applied to the forepart of the neck, and laudanum muſt be adminiſtered, to co-operate with the other remedies in removing the ſpaſm. The bowels ſhould be kept open, with calomel and jalap, and when the phlegm in the wind-pipe impedes the breathing, an emetic may be given. Theſe medicines muſt be uſed during a fit or paroxyſm, after which the ſyſtem muſt be invigorated, to prevent a return of the diſeaſe, by tonics and ſtimulants, ſuch as bark, wine, ſteel, and cold bathing, aſſiſted by nouriſhing food, and ſuitable exerciſe.

## *Of Teething.*

Dr. ARBUTHNOT obſerves, that above a tenth part of infants die in teething, by ſymptoms proceeding from the irritation of the tender nervous parts of the jaws, occaſioning inflammations, fevers, convulſions, gangrenes, &c. Theſe ſymptoms are in a great meaſure owing to the great delicacy and exquiſite ſenſibility of the nervous ſyſtem at this time of life, which is too often increaſed by an effeminate education. Hence, children delicately brought up, always ſuffer moſt in teething, and often fall by convulſive diſorders.

About the ſixth or ſeventh month the teeth generally begin to make their appearance; firſt, the *inciſores*, or fore-teeth; next, the *canini*, or dog-teeth; and, laſtly, the *molares*, or grinders. About the ſeventh year, there comes a new ſet; and about the twentieth, the two inner grinders, called *dentes ſapientiæ*, the teeth of wiſdom.

Children, about the time of cutting their teeth, ſlaver much, and have generally a looſeneſs. When the teething is difficult, eſpecially when the dog-teeth begin to make their way through the gums, the child has ſtartings in his ſleep, tumours of the gums, watchings, gripes, green ſtools, the thruſh, fever, difficult breathing, and convulſions.

Difficult teething require nearly the ſame treatment as an inflammatory diſeaſe. If the body be bound, it muſt be opened either by emollient clyſters or gentle purgatives; as manna, magneſia alba, ſenna, or the like. The food ſhould be light, and in ſmall quantity; the drink plentiful, but weak and diluting, as infuſions of balm, or of the lime-tree flowers; to which about a third or fourth part of milk may be added.

If the fever be high, bleeding will be neceſſary; but this in very young children ought always to be ſparingly performed. It is an evacuation which they bear the worſt of any. Purging, vomiting, or ſweating agree much better with them, and are generally more beneficial. Harris, however, obſerves, that when an inflammation appears, the phyſician will labour in vain, if the cure be not begun with applying a leech under each ear. If the child be ſeized with convulſion fits, a bliſter may be applied between the ſhoulders, or one behind each ear*.

Sydenham ſays, that in fevers occaſioned by teething, he never found any remedy ſo effectual, as two, three, or four drops of ſpirits of hartſhorn in a ſpoonful of ſimple water, or other convenient vehicle, given every four hours. The number of doſes may be four, five, or ſix. I have often preſcribed this medicine with ſucceſs, but always found a larger doſe neceſſary. It may be given from five drops to fifteen or twenty, according to the age of the child.

In Scotland, it is very common, when children are cutting their teeth, to put a ſmall Burgundy-pitch plaiſter between their ſhoulders. This generally eaſes the tickling cough which attends teething, and is by no means an uſeleſs application. When the teeth are cut with difficulty, it ought to be kept on during the whole time of teething. It may be enlarged as occaſion requires, and ought to be renewed, at leaſt once a fortnight.

Several things have been recommended for rubbing the gums, as oils, mucilages, &c.; but from theſe, much is not to be expected. If any thing of this kind is to be uſed, we would recommend a little fine honey, which may be rubbed on with the finger three or

* The child ſhould be put into the warm bath, and a ſuitable doſe of laudanum adminiſtered. (I. C.)

four times a-day. Children are generally at this time diſpoſed to chew whatever they get into their hands. For this reaſon, they ought never to be without ſomewhat that will yield a little to the preſſure of their gums, as a cruſt of bread, a wax-candle, a bit of liquorice-root, or ſuch like.

With regard to cutting the gums, we have ſeldom known it of great benefit. In obſtinate caſes, however, it ought to be tried. It may be performed by any ſharp body which can be with ſafety introduced into the mouth; but the lancet, in a ſkilful hand, is the moſt proper.

To render the teething leſs difficult, parents ought to take care that their children's food be light and wholeſome, and that their nerves be braced by ſufficient exerciſe without doors, the uſe of the cold bath, &c. Were theſe things duly regarded, they would have a much better effect than teething necklaces, or other nonſenſical amulets worn for that purpoſe.

## *The Rickets*

GENERALLY attack children between the age of nine months and two years. It appeared firſt in England about the time when manufactures began to flouriſh, and ſtill prevails moſt in towns where the inhabitants follow ſedentary employments, by which means they neglect either to take proper exerciſe themſelves, or to give it to their children.

CAUSES.——One cauſe of the rickets is diſeaſed parents. Mothers of a weak relaxed habit, who neglect exerciſe, and live upon weak watery diet, can neither be expected to bring forth ſtrong and healthy children, or to be able to nurſe them after they are brought forth. Accordingly, we find, that the children of ſuch women generally die of the rickets, the ſcrophula, conſumptions, or ſuch like diſeaſes. Children begotten by men in the decline of life, who are ſubject to the gout, the gravel, or other chronic diſeaſes, or who have been often affected with the venereal diſeaſe in their youth, are likewiſe very liable to the rickets.

Any diſorder that weakens the conſtitution, or relaxes the habit of children, as the ſmall-pox, meaſles, teething, the hooping-cough, &c. diſpoſes them to this diſeaſe. It may be occaſioned by improper diet, as food that is either too weak and watery, or ſo viſcid that the ſtomach cannot digeſt it.

Bad nurſing is the chief cauſe of this diſeaſe. When the nurſe is either diſeaſed, or has not enough of milk to nouriſh the child, it cannot thrive. But children ſuffer oftner by want of care in nurſes than want of food. Allowing an infant to lie or ſit too much, or not keeping it thoroughly clean in its clothes, has the moſt pernicious effects.

The want of free air is likewiſe very hurtful to children in this reſpect. When a nurſe lives in a cloſe, ſmall houſe, where the air is damp and confined, and is too indolent to carry her child abroad into the open air, it will hardly eſcape this diſeaſe. A healthy child ſhould always be in motion, unleſs when aſleep; if it be ſuffered to lie, or ſit, inſtead of being toſſed and dandled about, it will not thrive.

SYMPTOMS.——At the beginning of this diſeaſe the child's fleſh grows ſoft and flabby; its ſtrength is diminiſhed; it loſes its wonted cheerfulneſs, looks more grave and compoſed than is natural for its age, and does not chooſe to be moved. The head and belly become too large in proportion to the other parts; the face appears full, and the complexion florid. Afterwards the bones begin to be affected, eſpecially in the more ſoft and ſpungy parts. Hence the wriſts and ancles become thicker than uſual; the ſpine or back-bone puts on an unnatural ſhape; the breaſt is likewiſe often deformed; and the bones of the arms and legs grow crooked. Theſe ſymptoms vary according to the violence of the diſeaſe. The pulſe is generally quick, but feeble; the appetite and digeſtion for the moſt part bad; the teeth come ſlowly and with difficulty, and they often rot and fall out afterwards. Ricketty children generally have great acuteneſs of mind, and an underſtanding above their years. Whether this is owing to their being more in company of adults than other children, or to the preternatural enlargement of the brain, is not material.

REGIMEN.——As this diſeaſe is always attended with evident ſigns of weakneſs and relaxation, our chief aim in the cure, muſt be, to brace and ſtrengthen the ſolids, and to promote digeſtion, and the due preparation of the fluids. Theſe important ends will be beſt anſwered by wholeſome nouriſhing diet, ſuited to the age and ſtrength of the patient, open dry air, and ſufficient exerciſe. If the child has a bad nurſe, who either neglects her duty, or does not underſtand it, ſhe ſhould be changed. If the ſeaſon be cold, the child ought to be kept warm; and when the weather is hot, it ought to be kept cool; as ſweating is apt to weaken it; and too great a degree of cold has the ſame effect. The limbs ſhould be rubbed frequently with a warm hand, and the child kept as cheerful as poſſible.

The diet ought to be dry and nouriſhing, as good bread, roaſted fleſh, &c. Biſcuit is generally reckoned the beſt bread; and pigeons, pullets, veal, rabbits, or mutton roaſted or minced, are the moſt proper fleſh. If the child be too young for fleſh-meats, he may have rice, millet, or pearl-barley boiled with raiſins, to which may be added a little wine and ſpice. His drink may be good claret, mixed with an equal quantity of water. Thoſe who cannot afford claret, may give the child, now and then, a wine-glaſs of mild ale, or good porter.

MEDICINE.——Medicines are here of little avail. The diſeaſe may often be cured by the nurſe, but ſeldom by the phyſician. In

children of a groſs habit, gentle vomits, and repeated purges of rhubarb may ſometimes be of uſe, but they will ſeldom carry off the diſeaſe; that muſt depend chiefly upon ſuch things as brace and ſtrengthen the ſyſtem: for which purpoſe, beſides the regimen mentioned above, we recommend the cold bath, eſpecially in the warm ſeaſon. It muſt, however, be uſed with prudence, as ſome ricketty children cannot bear it. The beſt time for uſing the cold bath is in the morning, and the child ſhould be well rubbed with a dry cloth immediately after he comes out of it. If the child ſhould be weakened by the cold bath, it muſt be diſcontinued.

Sometimes iſſues have been found beneficial in this diſeaſe.—They are peculiarly neceſſary for children who abound with groſs humours. An infuſion of the bark in wine or ale would be of ſervice, were it poſſible to bring children to take it. Many other medicines have been recommended for the rickets; but there is far more danger in truſting to theſe than in neglecting them altogether. We recommend a proper regimen as the thing chiefly to be depended on.

## *Of Convulſions.*

THOUGH more children are ſaid to die of convulſions than of any other diſeaſe, yet they are, for the moſt part, only a ſymptom of ſome other malady. Whatever greatly irritates or ſtimulates the nerves, may occaſion convulſions. Hence, infants, whoſe nerves are eaſily affected, are often thrown into convulſions by any thing that irritates the alimentary canal; likewiſe, by teething; ſtrait clothes; the approach of the ſmall-pox, meaſles, or other eruptive diſeaſes.

When convulſions proceed from an irritation of the ſtomach or bowels, whatever clears them of their acrid contents, or renders theſe mild and inoffenſive, will generally perform a cure: wherefore, if the child be coſtive, the beſt way will be to begin with a clyſter, and afterwards to give a gentle vomit, which may be repeated occaſionally, and the body in the mean time kept open by gentle doſes of *magneſia alba*.

Convulſions which precede the eruption of the ſmall-pox or meaſles, generally go off upon theſe making their appearance. The principal danger in this caſe, ariſes from the fears and apprehenſions of thoſe who have the care of the patient. Convulſions are very alarming, and ſomething muſt be done to appeaſe the affrighted parents, nurſes, &c. Hence the unhappy infant often undergoes bleeding, bliſtering, and ſeveral other operations, to the great danger of its life, when a little time, bathing the feet in warm-water, and throwing in a mild clyſter, would have ſet all to rights.

When convulſion-fits ariſe from the cutting of teeth, beſides gentle evacuations, we recommend bliſtering, and the uſe of an-

tiſpaſmodic medicines, as the tincture of foot, aſafœtida, or caſtor. A doſe of laudanum may be mixed in a cup of white-wine whey, and given occaſionally.

When convulſions proceed from any external cauſe, as the preſſure occaſioned by ſtrait clothes or bandages, &c. theſe ought immediately to be removed; though, in this caſe, taking away the cauſe will not always remove the effect, yet it ought to be done. It is not likely that the patient will recover, as long as the cauſe which firſt gave riſe to the diſorder continues to act.

When a child is ſeized with convulſions, without having any complaint in the bowels, or ſymptoms of teething; or any raſh or other diſcharge which has been ſuddenly dried up, we have reaſon to conclude that it is a primary diſeaſe, and proceeds immediately from the brain. Caſes of this kind happen but ſeldom, which is very fortunate, as little can be done to relieve the patient. When a diſeaſe proceeds from an original fault in the formation or ſtructure of the brain itſelf, we cannot expect that it ſhould yield to medicine. But as this is not always the cauſe, even of convulſions which proceed immediately from the brain, ſome attempts ſhould be made to remove them. The chief attention to be purſued for this purpoſe, is to make ſome derivation from the head, by bliſtering, purging, and the like. Should theſe fail, iſſues or ſetons may be put in the neck, or between the ſhoulders.

## *Water in the Head, or a Dropſy of the Brain,*

MAY affect adults as well as children, yet, as the latter are more peculiarly liable to it, we thought it proper to place it among the diſeaſes of infants.

CAUSES.——A dropſy of the brain may proceed from injuries done to the brain itſelf, by falls, blows, or the like; from an original laxity or weakneſs of the brain; from ſchirrous tumors, or excreſcences within the ſkull; a thin, watery ſtate of the blood; a diminiſhed ſecretion of urine; and, laſtly, from tedious and lingering diſeaſes, which waſte and conſume the patient.

SYMPTOMS.——This diſeaſe has at firſt the appearance of a ſlow fever; the patient complains of a pain in the crown of his head, or over his eyes; he ſhuns the light; is ſick, and ſometimes vomits; his pulſe is irregular and generally low: though he ſeems heavy and dull, yet he does not ſleep: he is ſometimes delirious, and frequently ſees objects double; towards the end of this commonly fatal diſeaſe, the pulſe becomes more frequent, the pupils of the eyes are generally dilated, attended with ſquinting; the cheeks flushed, the patient becomes comatoſe, and convulſions enſue.

MEDICINE.——No medicine has hitherto been found ſufficient to carry off a dropſy of the brain. It is laudable, however, to make ſome attempts, as time or chance may bring many things to light, of which at preſent we have no idea. The medicines generally uſed are, purges of rhubarb or jalap with calomel, and bliſters applied to the neck or back part of the head. To which we beg leave to add diuretics, or medicines which promote the ſecretion of urine, ſuch as are recommended in the common dropſy. A diſcharge from the noſe ought likewiſe to be promoted, by cauſing the patient to ſnuff the powder of aſarum, white hellebore, or the like.

Some practitioners have, of late, pretended, to cure this diſeaſe by the uſe of mercury. I have not ſeen a cure performed in a confirmed dropſy of the brain*; but in ſo deſperate a malady, every thing deſerves a trial†.

* The cure of this diſeaſe may ſometimes be effected, by attending to the following circumſtance, and directing the remedies accordingly: If the pulſe is full, and the fever conſiderable, which is uſually the caſe, in the firſt ſtage of this diſeaſe, blood ſhould be taken from the arm, and the operation repeated if neceſſary. The quantity to be taken muſt depend upon the urgency of the ſymptoms and age of the patient: during the time of bleeding, purging ſhould be produced with calomel and jalap, and every part of the cooling regimen ſtrictly enjoined. Bliſters muſt be applied to the neck, with the previous application of cupping-glaſſes; the bliſters ſhould be ſuffered to diſcharge, until a reduction of the inflammatory ſymptoms has been effected, or until the diſeaſe has paſſed into the ſecond ſtage In which, an effuſion of water is ſuſpected to have taken place in the brain. This may be conjectured, from a quick and feeble pulſe; together with a continuance of the dilated pupil and ſquinting eye; the treatment muſt be then varied, and the ſyſtem charged with mercury, in order to promote the abſorption, and carry off the water; for this purpoſe, one or two drachms of mercurial ointment muſt be rubbed into the inſide of each thigh, every morning and evening, until the gums are affected: This practice muſt be continued until the ſymptoms are removed. After this, the debilitated ſyſtem ſhould be invigorated by tonics, ſuch as bark, ſteel, exerciſe, nouriſhing food, and cold bathing. I. C.

† One reaſon why this diſeaſe is ſeldom or never cured, may be, that it is ſeldom known till too far advanced to admit of a remedy. Did parents watch the firſt ſymptoms, and call a phyſician in due time, I think that ſomething might be done. But theſe ſymptoms are not ſufficiently known and are often miſtaken even by phyſicians themſelves. Of this, I lately ſaw a ſtriking inſtance, in a patient attended by an eminent practitioner of this city, who had all along miſtaken the diſeaſe for teething.

# CHAPTER LII.

## *Of Surgery.*

TO deſcribe all the operations of ſurgery, and point out the different diſeaſes in which they are neceſſary, would extend this article far beyond the limits ſet to it; we therefore confine our obſervations to ſuch caſes as moſt generally occur, and in which proper aſſiſtance is either not aſked, or not always to be obtained.

Though an acquaintance with the ſtructure of the humane body is indiſpenſably neceſſary to qualify a man for being an expert ſurgeon; yet many things may be done to ſave the lives of their fellow-men in emergencies by thoſe who are no adepts in anatomy. The peaſants daily perform operations upon brute animals, which are not of a leſs difficult nature than many of thoſe performed on the human ſpecies; yet they ſeldom fail of ſucceſs.

Every man is in ſome meaſure a ſurgeon whether he will or not. He feels an inclination to aſſiſt his fellow-men in diſtreſs, and accidents happen every hour which give occaſion to exerciſe this feeling. The feelings of the heart, however, when not directed by the judgment, are apt to miſlead. Thus one, by a raſh attempt to ſave his friend, may ſometimes deſtroy him; while another, for fear of doing amiſs, ſtands ſtill, and ſees him expire without attempting to relieve him, even when the means are in his power. As every good man would wiſh to ſteer a courſe different from either of theſe, it will, no doubt, be agreeable to him, to know what ought to be done upon ſuch emergencies.

## *Of Bleeding.*

NO operation of ſurgery is ſo frequently neceſſary as bleeding; it ought, therefore, to be very generally underſtood. But though practiſed by midwives, gardeners, blackſmiths, &c. very few know when it is proper. Phyſicians themſelves have been ſo much the dupes of theory in this article, as to render it the ſubject of ridicule. It is an operation of great importance, and muſt, when ſeaſonably and properly performed, be of ſingular ſervice to thoſe in diſtreſs.

Bleeding is proper at the beginning of all inflammatory fevers, as pleuriſies, peripneumonies, &c. It is likewiſe proper in all topical inflammations, as thoſe of the inteſtines, womb, bladder, ſtomach, kidnies, throat, eyes, &c. as alſo in the aſthma, ſciatic pains, coughs, head-achs, rheumatiſms, the apoplexy, epilepſy, and bloody flux. After falls, blows, bruiſes, or any violent hurt re-

ceived either externally or internally, bleeding is neceſſary. But in all diſorders proceeding from a relaxation of the ſolids, and an impoveriſhed ſtate of the blood, as dropſies, cacochymies, &c. bleeding is improper.

Bleeding for topical inflammations ought always to be performed as near the part affected as poſſible. When this can be done with a lancet, it is to be preferred to any other method; but where a vein cannot be found, recourſe muſt be had to leeches or cupping.

The quantity of blood to be let muſt always be regulated by the ſtrength, age, conſtitution, manner of life, and other circumſtances relating to the patient. It would be ridiculous to ſuppoſe that a child could bear to looſe as much blood as a grown perſon, or that a delicate lady ſhould be bled to the ſame extent as a robuſt man.

From whatever part of the body blood is to be let, a bandage muſt be applied between that part and the heart. As it is often neceſſary, in order to raiſe the vein, to make the bandage pretty tight, it will be proper in ſuch caſes, as ſoon as the blood begins to flow, to ſlacken it a little. The bandage ought to be applied at leaſt an inch, or an inch and half from the place where the wound is intended to be made.

Perſons not ſkilled in anatomy ought never to bleed in a vein that lies over an artery or a tendon, if they can avoid it. The former may eaſily be known from its pulſation or beating, and the latter from its feeling hard or tight, like a whip-cord under the finger.

It was formerly a rule, even among *regular* practitioners, to bleed their patients in certain diſeaſes till they fainted. A more ridiculous rule could not be propoſed. One perſon will faint at the very ſight of a lancet, while another will looſe almoſt the whole blood of his body before he faints. Swooning depends more upon the ſtate of the mind than of the body; beſides, it may often be occaſioned or prevented by the manner in which the operation is performed.

Children are generally bled with leeches. This, though ſometimes neceſſary, is a very troubleſome and uncertain practice. It is impoſſible to know what quantity of blood is taken away by leeches; beſides, the bleeding is often very difficult to ſtop, and the wounds are not eaſily healed. Would thoſe who practiſe bleeding take a little more pains, and accuſtom themſelves to bleed children, they would not find it ſuch a difficult operation as they imagine.

Certain hurtful prejudices, with regard to bleeding, ſtill prevail among the country people. They talk, for inſtance, of head-veins, heart-veins, breaſt-veins, &c. and believe that bleeding in theſe will certainly cure all diſeaſes of the parts from whence they are ſuppoſed to come, without conſidering that all the blood-veſſels

arise from the heart, and return to it again; for which reason, unless in topical inflammations, it signifies very little from what part of the body blood is taken. But this, though a foolish prejudice, is not near so hurtful as the vulgar notion, that the first bleeding will perform wonders. This belief makes them often postpone the operation when necessary, in order to reserve it for some more important occasion, and, when they think themselves in extreme danger, they fly to it for relief, whether it be proper or not. Bleeding at certain stated periods or seasons has, likewise, bad effects.

It is, likewise, a common notion, that bleeding in the feet draws the humours downwards, and consequently cures diseases of the head and other superior parts: but in all topical affections, blood ought to be drawn as near the part as possible. When it is necessary to bleed in the foot or hand, as the veins are small, and the bleeding is apt to stop too soon, the part ought to be immersed in warm water, and kept there till a sufficient quantity of blood be let.

We shall not spend time in describing the manner of performing this operation: that will be better learned by example than precept. Twenty pages of description would not convey so just an idea of the operation as seeing it once performed by an expert hand. Neither is it necessary to point out the different parts of the body from whence blood may be let, as the arm, foot, forehead, temples, neck, &c. These will readily occur to every intelligent person, and the foregoing observations will be sufficient for determining which of them is most proper upon any particular occasion. In all cases where the intention is only to lessen the general mass of blood, the arm is the most commodious part of the body in which the operation can be performed.

## *Of Inflammations and Abscesses.*

FROM whatever cause an inflammation proceeds, it must terminate either by dispersion, suppuration, or gangrene. It is impossible to foretel, with certainty, in which of these ways any particular inflammation will terminate, yet a probable conjecture may be formed with regard to the event, from a knowledge of the patient's age and constitution. Inflammations happening in a slight degree upon colds, and without any previous indisposition, will most probably be dispersed; those which follow close upon a fever, or happen to persons of a gross habit of body, will generally suppurate; and those which attack very old people, or persons of a dropsical habit, will have a strong tendency to gangrene.

If the inflammation be slight, and the constitution sound, the dispersion ought always to be attempted. This will be best pro-

moted by a ſlender diluting diet, plentiful bleeding, and repeated purges. The part itſelf muſt be fomented, and if the ſkin be very tenſe, it may be embrocated with a mixture of three-fourths of ſweet-oil, and one-fourth of vinegar, and afterwards covered with a piece of wax-plaiſter.

If, nowithſtanding theſe applications, the ſymptomatic fever increaſes, and the tumour becomes larger, with violent pain and pulſation, it will be proper to promote the ſuppuration. The beſt application for this purpoſe is a ſoft poultice, which may be renewed once a-day. If the ſuppuration proceeds but ſlowly, a raw onion cut ſmall or bruiſed may be ſpread upon the poultice. When the abſceſs is ripe or fit for opening, which may eaſily be known from the thinneſs of the ſkin in the moſt prominent part of it, a fluctuation of matter, which may be felt under the finger, and, generally ſpeaking, an abatement of the pain, it may be opened with a lancet, or by means of cauſtic.

The laſt way in which an inflammation terminates, is in a gangrene, or mortification, the approach of which may be known by the following ſymptoms: The inflammation looſes its redneſs, and becomes duſkiſh or livid; the tenſion of the ſkin goes off, and it feels flabby; little bladders filled with ichor of different colours ſpread all over it; the tumour ſubſides, and from a duſkiſh complexion, becomes black. A quick low pulſe, with cold clammy ſweats, are the immediate forerunners of death.

When theſe ſymptoms firſt appear, the part ought to be dreſſed with cataplaſms made of lixivium and bran. Should the ſymptoms become worſe, the part muſt be ſcarified, and afterwards dreſſed with baſilicum ſoftened with oil of turpentine. All the dreſſings muſt be applied warm. With regard to internal medicines, the patient muſt be ſupported with generous cordials, and the bark exhibited in as large doſes as the ſtomach will bear it. If the mortified parts ſhould ſeparate, the wound will become a common ulcer, and muſt be treated accordingly.

This article includes the treatment of all thoſe diſeaſes, which, in different parts of the country, go by the names of *biles*, *impoſthumes*, *whitloes*, *&c.* They are all abſceſſes in conſequence of a previous inflammation, which, if poſſible, ought to be diſcuſſed; but when this cannot be done, the ſuppuration ſhould be promoted, and the matter diſcharged by an inciſion, if neceſſary; afterwards the ſore may be dreſſed with yellow baſilicum, or ſome other digeſtive ointment.

## *Of Wounds.*

NO part of medicine has been more miſtaken than the treatment or cure of wounds. Mankind, in general, believe that certain herbs, ointments, and plaiſters are poſſeſſed of wonderful healing powers, and imagine that no wound can be cured without the application of them. It is, however, a fact, that no external application, whatever, contributes towards the cure of a wound, any other way than by keeping the parts ſoft, clean, and defending them from the external air, which may be as effectually done by dry lint, as by the moſt pompous applications, while it is exempt from many of the bad conſequences attending them.

The ſame obſervation holds with reſpect to internal applications. Theſe only promote the cure of wounds as far as they tend to prevent a fever, or to remove any cauſe that might obſtruct or impede the operations of nature. Nature alone cures wounds.—Art can only remove obſtacles, and put the parts in ſuch a condition as is moſt favourable to Nature's efforts.

With this ſimple view, we ſhall conſider the treatment of wounds, and endeavour to point out ſuch ſteps as facilitate their cure.

The firſt thing to be done when a perſon has received a wound, is to examine whether any foreign body be lodged in it, as wood, ſtone, iron, lead, glaſs, dirt, bits of cloth, or the like. Theſe, if poſſible, ought to be extracted, and the wound cleaned, before any dreſſings be applied. When that cannot be effected with ſafety, on account of the patient's weakneſs, or loſs of blood, they muſt be ſuffered to remain in the wound, and afterwards extracted when he is more able to bear it.

When a wound penetrates into any of the cavities of the body, as the breaſt, the bowels, &c. or where any conſiderable blood-veſſel is cut, a ſkilful ſurgeon ought immediately to be called, otherwiſe the patient may looſe his life. But ſometimes the diſcharge of blood is ſo great, that if it be not ſtopt, the patient may die even before a ſurgeon, though at no great diſtance, can arrive. In this caſe, ſomething muſt be done by thoſe who are preſent. If the wound be in any of the limbs, the bleeding may generally be ſtopt by applying a tight ligature or bandage round the member a little above the wound. The beſt method of doing this, is, to put a ſtrong broad garter round the part, but ſo ſlack as eaſily to admit a ſmall piece of ſtick to be put under it, which muſt be twiſted, in the ſame manner as a countryman does a cart-rope to ſecure his loading, till the bleeding ſtops. Whenever this is the caſe, he muſt take care to twiſt it no longer, as ſtraining it too much might occaſion an inflammation of the parts, and endanger a gangrene.

In parts where this bandage cannot be applied, various other methods may be tried to ſtop the bleeding, as the application of

ſtyptics, aſtringents, &c. Cloths dipped in a ſolution of blue vitriol in water, or the *ſtyptic water* of the Diſpenſatories, may be applied to the wound. When theſe cannot be obtained, ſtrong ſpirits of wine may be uſed. Some recommend the *agaric* of the oak as preferable to any of the other ſtyptics; and, indeed, it deſerves conſiderable encomiums. It is eaſily obtained, and ought to be kept in every family, in caſe of accidents. A piece of it muſt be laid upon the wound, and covered with a good deal of lint, above which a bandage may be applied ſo tight as to keep it firmly on.

Though ſpirits, tinctures, and hot balſams may be uſed, in order to ſtop the bleeding when it is exceſſive, they are improper at other times. They do not promote but retard the cure, and often change a ſimple wound into an ulcer. People imagine, becauſe hot balſams congeal the blood, and ſeem, as it were, to ſolder up the wound, that they therefore heal it; but this is only a deception. They may ſtop the flowing blood, by ſearing the mouths of the veſſels; but, by rendering the parts callous, they obſtruct the cure.

In ſlight wounds, which do not penetrate much deeper than the ſkin, the beſt application is a bit of the common black ſticking-plaiſter. This keeps the ſides of the wound together, and prevents the air from hurting it, which is all that is neceſſary. When a wound penetrates deep, it is not ſafe to keep its lips quite cloſe: this keeps in the matter, and is apt to make the wound feſter. In this caſe, the beſt way is to fill the wound with ſoft lint, commonly called *caddis*. It, however, muſt not be ſtuffed in too hard, otherwiſe it will do hurt. The *caddis* may be covered with a cloth dipped in oil, or ſpread with the common wax-plaiſter†; and the whole muſt be kept on by a proper bandage. Common ſenſe will ſuggeſt the moſt commodious method of applying it.

* Dr. Tiſſot, in his Advice to the People, gives the following directions for gathering, preparing, and applying the agaric. "Gather in autumn," ſays he, "while the fine weather laſts, the agaric of the oak, which is a kind of fungus or excreſcence iſſuing from the wood of that tree. It conſiſts at firſt of four parts, which preſent themſelves ſucceſſively: 1. The outward rind or ſkin, which may be thrown away. 2. The part immediately under this rind, which is the beſt of all. This is to be beat well with a hammer, till it becomes ſoft and very pliable.—This is the only preparation it requires, and a ſlice of it of a proper ſize is to be applied directly over the burſting open blood-veſſels. It conſtringes and brings them cloſe together, ſtops the bleeding, and generally falls off at the end of two days. 3. The third part, adhering to the ſecond, may ſerve to ſtop the bleeding from the ſmaller veſſels; and the fourth and laſt part, may be reduced to powder, as conducing to the ſame purpoſe."—Where the agaric cannot be had, ſponge may be uſed in its ſtead. It muſt be applied in the ſame manner, and has nearly the ſame effects.

† See Appendix, Wax-plaiſter.

The firſt dreſſing ought to continue on for at leaſt two days; after which it may be removed, and freſh lint applied as before. If any part of the firſt dreſſing ſticks ſo cloſe as not to be removed with eaſe or ſafety to the patient, it may be allowed to continue, and freſh lint, dipped in ſweet oil, laid over it. This will ſoften it, ſo as to make it come off eaſily at next dreſſing. Afterwards the wound may be dreſſed twice a-day in the ſame manner till it be quite healed. Thoſe who are fond of ſalves or ointments, may, after the wound is become very ſuperficial, dreſs it with the yellow *baſilicum*;* and if fungous, or what is called *proud fleſh*, ſhould riſe in the wound, it may be checked, by mixing with the ointment a little burnt alum or red precipitate of mercury.

When a wound is greatly inflamed, the moſt proper application is a poultice of bread and milk, ſoftened with a little ſweet oil or freſh butter. This muſt be applied inſtead of a plaiſter, and ſhould be changed twice a-day.

If the wound be large, and there is reaſon to fear an inflammation, the patient ſhould be kept on a very low diet. He muſt abſtain from fleſh, ſtrong liquors, and every thing of a heating nature. If he be of a full habit, and has loſt but little blood from the wound, he muſt be bled; and, if the ſymptoms be urgent, the operation may be repeated. But when the patient has been greatly weakened by loſs of blood from the wound, it will be dangerous to bleed him, even though a fever ſhould enſue. Nature ſhould never be too far exhauſted. It is more ſafe to allow her to ſtruggle with the diſeaſe in her own way, than to ſink the patient's ſtrength by exceſſive evacuations.

Wounded perſons ought to be kept perfectly quiet and eaſy. Every thing that ruffles the mind or moves the paſſions, as love, anger, fear, exceſſive joy, &c. are very hurtful. They ought, above all things, to abſtain from venery. The body ſhould be kept gently open, either by laxative clyſters, or a cool vegetable diet, as roaſted apples, ſtewed prunes, boiled ſpinage, and ſuch-like.

## *Of Burns.*

IN ſlight burns which do not break the ſkin, it is cuſtomary to hold the part near the fire for a competent time, to rub it with ſalt, or lay a compreſs upon it dipped in ſpirits of wine, brandy, or cold vinegar. But when the burn has penetrated ſo deep as to bliſter or break the ſkin, it muſt be dreſſed with ſome of the liniment for burns, mentioned in the Appendix, or with the emollient and gently drying ointment, commonly called *Turner's*

* See Appendix, Yellow-baſilicum.

*cerate.** This may be mixed with an equal quantity of freſh olive oil, and ſpread upon a ſoft rag, and applied to the part affected. When this ointment cannot be had, an egg may be beat up with about an equal quantity of the ſweeteſt ſalad oil. This will ſerve very well till a proper ointment can be prepared. When the burning is very deep, after the firſt two or three days, it ſhould be dreſſed with equal parts of yellow *baſilicum* and *Turner's cerate*, mixed together.

When the burn is violent, or has occaſioned a high degree of inflammation, as there is reaſon to fear a gangrene or mortification, the ſame means muſt be uſed to prevent it as are recommended in other violent inflammations. The patient, in this caſe, muſt live low, and drink freely of weak diluting liquors. He muſt likewiſe be bled, and have his body kept open. But if the burnt parts ſhould become livid or black, with other ſymptoms of mortification, it will be neceſſary to bathe them frequently with warm camphorated ſpirits of wine, tincture of myrrh, or other antiſeptics, mixed with a decoction of the bark. The bark muſt be taken internally, and the patient's diet muſt be generous.

As example teaches better than precept, I ſhall relate the treatment of the moſt dreadful caſe of this kind that has occurred in my practice. A middle-aged man, of a good conſtitution, fell into a large veſſel full of boiling water, and ſcalded about one-half of his body. As his clothes were on, the burning in ſome parts were very deep before they could be got off. For the firſt two days, the ſcalded parts had been frequently anointed with a mixture of lime-water and oil, which is a very proper application for recent burnings. On the third day, when I firſt ſaw him, his fever was high, and his body coſtive, for which he was bled, and had an emollient clyſter adminiſtered. Poultices of bread and milk, ſoftened with freſh butter, were likewiſe applied to the affected parts, to abate the heat and inflammation. His fever ſtill continuing high, he was bled a ſecond time, was kept ſtrictly on the cooling regimen, took the ſaline mixture, with ſmall doſes of nitre, and had an emollient clyſter adminiſtered once a-day. When the inflammation began to abate, the parts were dreſſed with a digeſtive, compoſed of brown cerate and yellow baſilicum. Where any black ſpots appeared, they were ſlightly ſcarified, and touched with the tincture of myrrh; and, to prevent their ſpreading, the bark was adminiſtered. By this courſe, the man was ſo well in three weeks, as to be able to attend his buſineſs.

* See Appendix, Turner's cerate.

## *Bruiſes*

ARE generally productive of worſe conſequences than wounds. As danger from them does not appear immediately, they are neglected. We proceed to point out the method of treatment.

In ſlight bruiſes it will be ſufficient to bathe the part with warm vinegar, to which a little brandy or rum may occaſionally be added, and to keep cloths wet with this mixture conſtantly applied to it. This is more proper than rubbing it with brandy, ſpirits, or wine, or other ardent ſpirits, which are commonly uſed in ſuch caſes.

When a bruiſe is very violent, the patient ought immediately to be bled, and put upon a proper regimen. His food ſhould be light and cool, his drink weak, and of an opening nature; as whey ſweetened with honey, decoctions of tamarinds, barley, cream-tartar-whey, and ſuch-like. The bruiſed part muſt be bathed with vinegar and water, as directed above; and a poultice made by boiling crumbs of bread, elder-flowers, and camomile-flowers, in equal quantities of vinegar and water, applied to it. This poultice is peculiarly proper when a wound is joined to the bruiſe. It may be renewed two or three times a-day.

As the ſtructure of the veſſels is totally deſtroyed by a violent bruiſe, there often enſues a great loſs or ſubſtance, which produces an ulcerous ſore very difficult to cure. If the bone be affected, the ſore will not heal before an exfoliation takes place; that is, before the diſeaſed part of the bone ſeparates, and comes out through the wound. This is often a very ſlow operation, and may even require ſeveral years to be completed. Hence it happens, that theſe ſores are frequently miſtaken for the king's evil, and treated as ſuch, though, in fact, they proceed ſolely from the injury which the ſolid parts received from the blow.

Patients in this ſituation are peſtered with different advices. Every one who ſees them propoſes a new remedy, till the ſore is ſo much irritated with various and oppoſite applications, that it is often at length rendered abſolutely incurable. The beſt method of managing ſuch ſores is, to take care that the patient's conſtitution does not ſuffer by confinement, or improper medicine, and to apply nothing to them but ſome ſimple ointment, ſpread upon ſoft lint, over which, a poultice of bread and milk, with boiled camomile-flowers, or the like, may be put, to nouriſh the part, and keep it ſoft and warm. Nature, thus aſſiſted, will generally in time operate a cure, by throwing off the diſeaſed parts of the bone, after which the ſore ſoon heals.

## *Ulcers*

MAY be the conſequence of wounds, bruiſes, or impoſthumes improperly treated; they may likewiſe proceed from an ill ſtate of the humours, or what may be called a bad habit of body.

In the latter caſe, they ought not to be haſtily dried up, otherwiſe it may prove fatal to the patient. Ulcers happen moſt commonly in the decline of life; and perſons who neglect exerciſe, and live groſsly, are moſt liable to them. They might often be prevented by retrenching ſome part of the ſolid food, or by opening artificial drains, as iſſues, ſetons, or the like.

An ulcer may be diſtinguiſhed from a wound by its diſcharging a thin watery humour, which is often ſo acrid as to inflame and corrode the ſkin; by the hardneſs and perpendicular ſituation of its ſides or edges, by the time of its duration, &c.

It requires conſiderable ſkill to be able to judge whether or not an ulcer ought to be dried up. In general, all ulcers which proceed from a bad habit of body, ſhould be ſuffered to continue open, at leaſt till the conſtitution has been ſo far changed by proper regimen, or the uſe of medicine, that they ſeem diſpoſed to heal of their own accord. Ulcers, which are the effect of malignant fevers, or other acute diſeaſes, may generally be healed with ſafety after the health has been reſtored for ſome time. The cure ought not to be attempted too ſoon, nor at any time, without the uſe of purging medicines and a proper regimen. When wounds or bruiſes, have, by wrong treatment, degenerated into ulcers, if the conſtitution be good, they may generally be healed with ſafety. When ulcers either accompany chronical diſeaſes, or come in their ſtead, they muſt be cautiouſly healed. If an ulcer conduces to the patient's health, from whatever cauſe it proceeds, it ought not to be healed; but if, on the contrary, it waſtes the ſtrength, and conſumes the patient by a ſlow fever, it ſhould be healed as ſoon as poſſible.

We recommend a ſtrict attention to theſe particulars, to all who have the misfortune to labour under this diſorder, particularly perſons in the decline of life; as often people throw away their lives by the want of it, while they were extolling, and generouſly rewarding thoſe, whom they ought to have looked upon as their executioners.

The moſt proper regimen for promoting the cure of ulcers, is to avoid all ſpices, ſalted and high-ſeaſoned food, all ſtrong liquors, and to leſſen the uſual quantity of fleſh-meat. The body ought to be kept gently open, by a diet, conſiſting chiefly of cooling, laxative vegetables, and by drinking butter-milk, whey, ſweetened with honey, or the like. The patient ought to be kept cheerful, and ſhould take as much exerciſe as he can eaſily bear.

When the bottom and ſides of an ulcer ſeem hard and callous,

they may be ſprinkled, twice a day, with a little red precipitate of mercury, and afterwards dreſſed with the yellow baſilicum ointment. Sometimes it will be neceſſary to have the edges of the ulcer ſcarified with the lancet.

Lime-water has frequently been known to have very happy effects in the cure of obſtinate ulcers. It may be uſed in the ſame manner as directed for the ſtone and gravel.

Dr. Whytt ſtrongly recommends the uſe of the ſolution of corroſive ſublimate of mercury in brandy, for the cure of obſtinate ill-conditioned ulcers. I have frequently found this medicine prove very ſucceſsful. The doſe is a table-ſpoonful night and morning; at the ſame time waſhing the ſore twice or thrice a-day with it. The Doctor informed me, "That he obſerved waſhing the ſore thrice a-day, with the ſolution of a triple ſtrength, was very beneficial*."

A fiſtulous ulcer can ſeldom be cured without an operation. It muſt either be laid open ſo as to have its callous parts deſtroyed by ſome corroſive application, or they muſt be entirely cut away by the knife; but as this operation requires the hand of an expert ſurgeon, there is no occaſion to deſcribe it. Ulcers about the *anus* are moſt apt to become fiſtulous, and are very difficult to cure.—Some, indeed, pretend to have found Ward's Fiſtula paſte very ſucceſsful in this complaint. It is not a dangerous medicine, and being eaſily procured, it may deſerve a trial; but as theſe ulcers generally proceed from an ill habit of body, they will ſeldom yield to any thing except a long courſe of regimen, aſſiſted by medicines, fitted to correct that particular habit, and to induce an almoſt total change in the conſtitution.

## CHAP. LIII.

### *Of Diſlocations.*

WHEN a bone is moved out of its place, or articulation, ſo as to impede its proper functions, it is ſaid to be *luxated* or *diſlocated*. As this often happens to perſons in ſituations where no medical aſſiſtance can be obtained, by which means, limbs, and even lives, are frequently loſt, we ſhall point out the method of reducing the moſt common luxations, and thoſe which require immediate aſſiſtance. Any perſon of common ſenſe and reſolution, who is preſent when a diſlocation happens, may often be of more ſervice to the patient, than the moſt expert ſurgeon can, after the ſwelling and inflammation have come on. When theſe are preſent,

* In ulcers of the lower limbs, great benefit is often received from tight rollers or wearing a laced ſtocking, as this prevents the flux of humours to the ſores, and diſpoſes them to heal.

it is difficult to know the ſtate of the joint, and dangerous to attempt a reduction; and by waiting till they are gone off, the muſcles become ſo relaxed, and the cavity filled up, that the bone can never afterwards be retained in its place.

A recent diſlocation may generally be reduced by extenſion alone, which muſt always be greater or leſs according to the ſtrength of the muſcles which move the joint, the age, robuſtneſs, and other circumſtances of the patient. When the bone has been out of its place for any conſiderable time, and a ſwelling or inflammation has come on, it will be neceſſary to bleed the patient, and, after fomenting the part, to apply ſoft poultices, with vinegar to it, for ſome time, before the reduction is attempted.

All that is neceſſary, after the reduction, is to apply cloths dipt in vinegar, or camphorated ſpirits of wine to the part, and to keep it perfectly eaſy. Many bad conſequences proceed from the neglect of this rule. A diſlocation ſeldom happens without the tendons and ligaments of the joint being ſtretched, and ſometimes torn. When theſe are kept eaſy till they recover their ſtrength and tone, all goes on very well; but if the injury be increaſed by too frequent an exertion of the parts, no wonder if they be found weak and diſeaſed ever after.

## *Diſlocation of the Jaw.*

THE lower jaw may be luxated by yawning, blows, falls, chewing hard ſubſtances, or the like. It is eaſily known from the patient's being unable to ſhut his mouth, or to eat any thing, as the teeth of the under jaw do not correſpond with thoſe of the upper; beſides, the chin either hangs down, or is thrown toward one ſide, and the patient is neither able to ſpeak diſtinctly, nor to ſwallow without conſiderable difficulty.

The uſual method of reducing a diſlocated jaw, is to ſet the patient upon a low ſtool, ſo as an aſſiſtant may hold the head firm, by preſſing it againſt his breaſt. The operator is then to thruſt his two thumbs, being firſt wrapped up with linen cloths, that they may not ſlip, as far back into the patient's mouth as he can, while his fingers are applied to the jaw externally. After he has got firm hold of the jaw, he is to preſs it ſtrongly downwards and backwards, by which means the elapſed heads of the jaw may be eaſily puſhed into their former cavities.

The peaſants in ſome parts of the country have a peculiar way of performing this operation. One of them puts a handkerchief under the patient's chin, then turning his back to that of the patient, pulls him up by the chin, ſo as to ſuſpend him from the ground. This method often ſucceeds, but we think it is dangerous, and, therefore, recommend the former.

## *Diſlocation of the Neck.*

THIS may happen by falls, violent blows, or the like.—In this caſe, if the patient receives no aſſiſtance, he ſoon dies, which makes people imagine the neck was broken: it is, however, for the moſt part, only partially diſlocated, and may be reduced by almoſt any perſon who has reſolution enough to attempt it. A complete diſlocation of the neck is inſtantaneous death.

When the neck is diſlocated, the patient is immediately deprived of all ſenſe and motion; his neck ſwells, his countenance appears bloated; his chin lies upon his breaſt, and his face is generally turned towards one ſide.

To reduce this diſlocation, the perſon ſhould immediately be laid upon his back on the ground, and the operator muſt place himſelf behind him ſo as to be able to lay hold of his head with both hands, while he makes a reſiſtance by placing his knees againſt the patient's ſhoulders. In this poſture he muſt pull the head with conſiderable force, gently twiſting it at the ſame time, if the face be turned to one ſide, till he perceives that the joint is replaced, which may be known from the noiſe which the bones generally make when going in, the patient beginning to breathe, and the head continuing in its natural poſture.

This is one of thoſe operations which it is more eaſy to perform than deſcribe. It has been happily performed even by women, and often by men of no medical education. After the neck is reduced, the patient ought to be bled, and ſhould be ſuffered to reſt for ſome days, till the parts recover their proper tone.

## *Diſlocation of the Ribs.*

AS the articulation of the ribs, with the back-bone, is very ſtrong, they are not often diſlocated. It ſometimes happens.—When a rib is diſlocated either upwards or downwards, in order to replace it, the patient ſhould be laid upon his belly, on a table, and the operator muſt endeavour to puſh the head of the bone in its proper place. Should this method not ſucceed, the arm of the diſordered ſide may be ſuſpended over a gate or ladder, and, while the ribs are thus ſtretched aſunder, the heads of ſuch as are out of place may be thruſt into their former ſituation.

Thoſe diſlocations wherein the heads of the ribs are forced inwards, are both more dangerous and the moſt difficult to reduce, as neither the hand nor any inſtrument can be applied internally to direct the luxated heads of the ribs. Almoſt the only thing that can be done, is, to lay the patient upon his belly, over a caſk,

or ſome gibbous body, and to move the fore-part of the rib inward towards the back, ſometimes ſhaking it; by this means, the heads of the luxated ribs may ſlip into their former place.

## *Diſlocation of the Shoulder.*

THE humerus, or upper bone of the arm, may be diſlocated in various directions: It happens moſt frequently downwards, but very ſeldom directly upwards. From the nature of its articulation, as well as from its expoſure to external injuries, this bone is the moſt ſubject to diſlocation of any in the body. A diſlocation of it may be known by a depreſſion or cavity on the top of the ſhoulder, and an inability to move the arm. When the diſlocation is downward, or forward, the arm is elongated, and a ball or lump is perceived under the arm-pit; but when it is backward, there appears a protuberance behind the ſhoulder, and the arm is thrown forwards toward the breaſt.

The uſual method of reducing diſlocations of the ſhoulder, is, to ſeat the patient upon a low ſtool, and to cauſe an aſſiſtant to hold his body ſo that it may not give way to the extenſion, while another lays hold of the arm a little above the elbow, and gradually extends it. The operator then puts a napkin under the patient's arm, and cauſes it to be tied behind his own neck: by this, while a ſufficient extenſion is made, he lifts up the head of the bone, and, with his hands, directs it into its proper place. There are various machines invented for facilitating this operation, but the hand of an expert ſurgeon is always more ſafe. In young and delicate patients, I have generally found it a very eaſy matter to reduce the ſhoulder, by extending the arm with one hand, and thruſting in the head of the bone with the other. In making the extenſion, the arm ought always to be a little bent.

## *Diſlocation of the Elbow.*

THE bones of the fore-arm may be diſlocated in any direction. When this is the caſe, a protuberance may be obſerved on that ſide of the arm towards which the bone is puſhed, from which, and the patient's inability to bend his arm, a diſlocation of this joint may eaſily be known.

Two aſſiſtants are generally neceſſary for reducing a diſlocation of the elbow; one of them muſt lay hold of the arm above, and the other below the joint, and make a pretty ſtrong extenſion, while the operator returns the bones into their proper place. Af-

terwards the arm muſt be bent, and ſuſpended for ſome time, with a ſling about the neck.

Luxations of the wriſt and fingers are to be reduced in the ſame manner as thoſe of the elbow, viz. by making an extenſion in different directions, and thruſting the head of the bone into its place.

### *Diſlocation of the Thigh.*

When the thigh-bone is diſlocated forward and downward, the knee and foot are turned out, and the leg is longer than the other; but when it is diſplaced backward, it is uſually puſhed upward at the ſame time, by which means, the limb is ſhortened, and the foot is turned inwards.

When the thigh-bone is diſplaced forward and downward, the patient, in order to have it reduced, muſt be laid upon his back, and made faſt by bandages, or held by aſſiſtants, while, by others, an extenſion is made by means of ſlings fixed about the bottom of the thigh, a little above the knee. While the extenſion is made, the operator muſt puſh the head of the bone outward, till it gets into the ſocket. If the diſlocation be outward, the patient muſt be laid upon his face, and, during the extenſion, the head of the bone muſt be puſhed inward.

Diſlocations of the *knees*, *ancles* and *toes*, are reduced much in the ſame manner as thoſe of the upper extremities, viz. by making an extenſion in oppoſite directions, while the operator replaces the bones. In many caſes, the extenſion alone is ſufficient, and the bone will ſlip into its place merely by pulling the limb with ſufficient force. It is not hereby meant, that force alone is ſufficient for the reduction of diſlocations. Skill and addreſs will often ſucceed better than force. I have known a diſlocation of the thigh reduced by one man, after all the force that could be uſed by ſix had proved ineffectual.

## CHAP. LIV.

### *Of Broken Bones, &c.*

THERE is, in moſt country villages, ſome perſon who pretends to the art of reducing fractures. Though in general ſuch perſons are very ignorant, yet ſome of them are very ſucceſsful; which evidently proves, that a ſmall degree of learning, with a ſufficient ſhare of common ſenſe and a mechanical head, will enable a man to be uſeful in this way. We adviſe people never to employ

ſuch operators, when an expert ſurgeon can be had; but when that is impracticable, they muſt be employed; we, therefore, recommend the following hints to their conſideration:

When a large bone is broken, the patient's diet ought, in all reſpects, to be the ſame as in an inflammatory fever. He ſhould, likewiſe, be kept quiet and cool, and his body open by emollient clyſters; or, if theſe cannot be conveniently adminiſtered, by food that is of an opening quality; as ſtewed prunes, apples boiled in milk, boiled ſpinage, and the like. Perſons accuſtomed to live high, are not, all of a ſudden, to be reduced to a very low diet. This might have fatal effects. There is often a neceſſity for indulging even bad habits, in ſome meaſure, where the nature of the diſeaſe might require a different treatment.

It will generally be neceſſary to bleed the patient immediately after a fracture, eſpecially if he be young, of a full habit, or has, at the ſame time, received any bruiſe or contuſion. This operation ſhould not only be performed ſoon after the accident happens, but if the patient be very feveriſh, it may be repeated next day. When ſeveral of the ribs are broken, bleeding is peculiarly neceſſary.

If any of the large bones which ſupport the body are broken, the patient muſt keep his bed for ſeveral weeks. It is by no means neceſſary, however, that he ſhould lie all that time, as is cuſtomary, upon his back. This ſituation ſinks the ſpirits, galls and frets the patient's ſkin, and renders him very uneaſy. After the ſecond week he may be gently raiſed up, and ſit ſeveral hours, ſupported by a bed-chair, or the like, which will greatly relieve him. Great care muſt be taken in raiſing him up, and laying him down, that he make no exertions himſelf, otherwiſe the action of the muſcles may pull the bone out of its place*.

It is of great importance to keep the patient dry and clean while in this ſituation. By neglecting this, he is often ſo galled and excoriated, that he is forced to keep ſhifting places for eaſe. I have known a fractured thigh-bone, after it had been kept ſtraight for above a fortnight, diſplaced by this means, and continue bent for life, in ſpite of all that could be done.

It has been cuſtomary, when a bone was broken, to keep the limb for five or ſix weeks continually upon the ſtretch. But this is a bad poſture. It is both uneaſy to the patient, and unfavourable to the cure. The beſt ſituation is to keep the limb a little bent. This is

* Various pieces of machinery have been contrived for counteracting the force of the muſcles, and retaining the fragments of broken bones; but as deſcriptions of theſe, without drawings, would be of little uſe, I ſhall refer the reader to a cheap and uſeful performance *on the nature and cure of fractures*, lately publiſhed by Mr. Aitken, ſurgeon in Edinburgh; wherein that gentleman has not only given an account of the machines recommended in fractures by former authors, but has likewiſe added ſeveral improvements of his own, which are peculiarly uſeful in compound fractures, and in caſes where patients with broken bones are obliged to be tranſported from one place to another.

the poſture into which every animal puts its limbs when it goes to reſt, and in which feweſt muſcles are upon the ſtretch. It is eaſily effected, by either laying the patient upon his ſide, or making the bed ſo as to favour this poſition of the limb.

Bone-ſetters ought carefully to examine, whether the bone be not ſhattered or broken into ſeveral pieces. In this caſe, it will ſometimes be neceſſary to have the limb immediately taken off, otherwiſe a gangrene or mortification may enſue. The horror which attends the very idea of an amputation often occaſions its being delayed in ſuch caſes till too late. I have known a limb, where the bones were ſhattered into more than twenty pieces, that was not amputated before the third day after the accident, when the gangrene had proceeded ſo far as to render the operation uſeleſs.

When a fracture is accompanied with a wound, it muſt be dreſſed, in all reſpects, as a common wound.

All that art can do towards the cure of a broken bone, is to lay it perfectly ſtraight, and to keep it quite eaſy. All tight bandages do hurt. They had much better be wanting altogether. A great many of the bad conſequences which ſucceed to fractured bones are owing to tight bandages. This is one of the ways in which the exceſs of art, or rather the abuſe of it, does more miſchief that would be occaſioned by the want of it. Some of the moſt ſudden cures of broken bones which were ever known, happened were no bandages were applied at all. Some method muſt be taken to keep the member ſteady; but this may be done in many ways without bracing it with a tight bandage.

The beſt method of retention is by two or more ſplints made of leather or paſteboard. Theſe, if moiſtened before they be applied, ſoon aſſume the ſhape of the included member, and are ſufficient, by the aſſiſtance of a very ſlight bandage, for all the purpoſes of retention. The bandage which he would recommend, is, that made with twelve or eighteen tails. It is much eaſier applied and taken off than rollers, and anſwers all the purpoſes of retention equally well. The ſplints ſhould always be as long as the limb, with holes cut for the ancles when the fracture is in the leg.

In fractures of the ribs, where a bandage cannot be properly uſed, an adheſive plaiſter may be applied over the part. The patient, in this caſe, ought to keep himſelf quite eaſy, avoiding every thing that may occaſion ſneezing, laughing, coughing, or the like. He ought to keep his body in a ſtraight poſture, and ſhould take care that his ſtomach be conſtantly diſtended, by taking frequently ſome light food, and drinking freely of weak watery liquors.

The moſt proper external application for a fracture is *oxycrate*, or a mixture of vinegar and water. The bandages ſhould be wet with this at every dreſſing.

## *Of Strains.*

STRAINS are often attended with worſe conſequences than broken bones. The reaſon is obvious; they are generally neglected. When a bone is broken, the patient is obliged to keep the member eaſy, becauſe he cannot make uſe of it; but when a joint is only ſtrained, the perſon, finding he can ſtill make a ſhift to move it, is ſorry to loſe his time for ſo trifling an ailment. In this way, he deceives himſelf, and converts it into an incurable malady, what might have been removed by only keeping the part eaſy for a few days.

Country people generally immerſe a ſtrained limb in cold water. This is very proper, provided it be done immediately, and not kept in too long. But the cuſtom of keeping the part immerſed in cold water for a long time is certainly dangerous. It relaxes inſtead of bracing the part, and is more likely to produce a diſeaſe than remove one.

Wrapping a garter, or ſome other bandage, pretty tight about the ſtrained part, is likewiſe of uſe. It helps to reſtore the proper tone of the veſſels, and prevents the action of the parts from increaſing the diſeaſe. It ſhould not, however, be applied too tight. I have frequently known bleeding near the affected part have a very good effect: but what we would recommend above all, is *eaſe*. It is more to be depended on than any medicine, and ſeldom fails to remove the complaint*.

## *Of Ruptures.*

CHILDREN and very old people are moſt liable to this diſeaſe. In the former, it is generally occaſioned by exceſſive crying, coughing, vomiting, or the like. In the latter, it is commonly the effect of blows or violent exertions of the ſtrength, as leaping, carrying great weights, &c. In both, a relaxed habit, indolence, and an oily or very moiſt diet, diſpoſe the body to this diſeaſe.

A rupture ſometimes proves fatal before it is diſcovered. When ſickneſs, vomiting, and obſtinate coſtiveneſs give reaſon to ſuſpect an obſtruction of the bowels, all thoſe places where ruptures uſually happen ought carefully to be examined. The protruſion of a

* Many external applications are recommended for ſtrains, ſome of which do good, and others hurt. The following are ſuch as may be uſed with the greateſt ſafety, viz. poultices made of ſtale beer or vinegar and oatmeal, camphorated ſpirits of wine, Mindererus's ſpirit, volatile liniment, volatile aromatic ſpirit diluted with a double quantity of water, and the common fomentation, with the addition of brandy or ſpirit of wine.

very ſmall part of the gut will occaſion all theſe ſymptoms; and if not returned in due time, will prove mortal.

On the firſt appearance of a rupture in an infant, it ought to be laid upon its back, with its head very low. While in this poſture, if the gut does not return of itſelf, it may eaſily be put up by gentle preſſure. After it is returned, a piece of ſticking-plaiſter may be applied over the part, and a proper truſs or bandage muſt be conſtantly worn for a conſiderable time. The method of making and applying theſe rupture-bandages for children is pretty well known. The child muſt, as far as poſſible, be kept from crying, and from all violent exertions, till the rupture is quite healed.

In adults, when the gut has been forced down with great violence, or happens from any cauſe to be inflamed, there is often great difficulty in returning it, and ſometimes the thing is impracticable without an operation; a deſcription of which is foreign to our purpoſe. As I have been fortunate enough, however, always to ſucceed in my attempts to return the gut, without having recourſe to any other means than what are in the power of every man, I ſhall briefly mention the method which I generally purſue.

After the patient has been bled, he muſt be laid upon his back, with his head very low, and his breech raiſed high with pillows. In this ſituation, flannel-cloths, wrung out of a decoction of mallows and camomile flowers, or, if theſe are not at hand, of warm water, muſt be applied for a conſiderable time. A clyſter made of this decoction, with a large ſpoonful of butter and a little ſalt, may be afterwards thrown up. If theſe ſhould not prove ſucceſsful, recourſe muſt be had to preſſure. If the tumour be very hard, conſiderable force will be neceſſary; but it is not force alone which ſucceeds here. The operator, at the ſame time that he makes a preſſure with the palms of his hand, muſt with his fingers artfully conduct the gut in by the ſame aperture through which it came out. The manner of doing this can be much eaſier conceived than deſcribed. Should theſe endeavours prove ineffectual, clyſters of the ſmoke of tobacco may be tried. Theſe have been often known to ſucceed where every other method failed.

By perſiſting in the uſe of theſe, and ſuch other means as the circumſtances of the caſe may ſuggeſt, moſt *hernias* might be reduced without an operation. Cutting for the *hernia* is a nice and difficult matter. I adviſe ſurgeons to try every method of returning the gut before they have recourſe to the knife. I have once and again ſucceeded by perſevering in my endeavours, after eminent ſurgeons had declared the reduction of the gut impracticable without an operation*.

* I would here beg leave to recommend it to every practitioner, when his patient complains of pain in the belly with obſtinate coſtiveneſs, to examine the groins and every place where a rupture may happen, in order that it may be immediately reduced. By neglecting this, many

An adult, after the gut has been returned, muſt wear a ſteel bandage. It is needleſs to deſcribe this, as it may always be had ready made from the artiſts. Such bandages are generally uneaſy to the wearer for ſome time, but by cuſtom, they become quite eaſy. No perſon who has had a rupture after he arrived at man's eſtate, ſhould ever be without one of theſe bandages.

Perſons who have a rupture, ought carefully to avoid all violent exerciſe, carrying great weights, leaping, running and the like. They ſhould avoid windy aliment and ſtrong liquors; and carefully guard againſt catching cold.

## *Of Caſualties.*

LIFE, when to all appearance loſt, may often, by due care, be reſtored. Accidents frequently prove fatal, merely becauſe proper means are not uſed to counteract their effects. No perſon ought to be looked upon as killed by any accident, unleſs where the ſtructure of the heart, brain, or ſome organ neceſſary to life, is evidently deſtroyed. The action of theſe organs may be ſo far impaired, as even to be for ſome time imperceptible, when life is by no means gone. In this caſe, however, if the fluids be ſuffered to grow cold, it will be impoſſible to put them again in motion, even though the ſolids ſhould recover their power of acting. Thus, when the motion of the lungs has been ſtopt by unwholeſome vapour, the action of the heart, by a ſtroke on the breaſt, or the functions of the brain, by a blow on the head, if the perſon be ſuffered to grow cold, he will in all probability continue ſo; but if the body be kept warm, as ſoon as the injured part has recovered its power of acting, the fluids will again begin to move, and all the vital functions will be reſtored.

It is a horrid cuſtom immediately to conſign over to death every perſon, who, by a fall, a blow, or the like, is deprived of the appearance of life. The perſon, inſtead of being carried into a warm houſe, and laid by the fire, or put to a warm bed, is generally hurried away to a church, or a barn, or ſome other cold damp houſe, where, after a fruitleſs attempt has been made to bleed him, perhaps by one who knew nothing of the matter, he is given over for dead, and no further notice taken of him. This conduct ſeems to be the reſult of ignorance, ſupported by an ancient ſuperſtitious notion, which forbids the body of any perſon killed by accident to be laid in an houſe that is inhabited. This conduct is contrary to all the principles of reaſon, humanity, and common ſenſe.

periſh who were not ſuſpected to have had ruptures till after they were dead. I have known this happen, where half a dozen of the faculty were in attendance.

When a perſon ſeems to be ſuddenly deprived of life, our firſt buſineſs is to enquire into the cauſe. We ought carefully to obſerve whether any ſubſtance be lodged in the windpipe or gullet; and, if that is the caſe, attempts muſt be made to remove it. When unwholeſome air is the cauſe, the patient ought immediately to be removed. He may be immerſed in warm water, or rubbed with warm cloths, &c. to promote the circulation. When the cauſe cannot ſuddenly be removed, our great aim muſt be, to keep up the vital warmth, by rubbing the patient with hot cloths, or ſalt, and covering his body with warm ſand, aſhes, or the like.

As to thoſe accidents, which, without immediate aſſiſtance, would often prove fatal, and the moſt likely means for relieving the ſufferers, I have been anticipated by Dr. Tiſſot. I ſhall content myſelf with ſelecting ſuch of his obſervations as ſeem to be the moſt important, and adding ſuch of my own as have occurred in the courſe of practice.

## *Of Subſtances ſtopt between the Mouth and Stomach.*

ACCIDENTS of this kind are very common, and extremely dangerous, yet they are generally the effect of careleſſneſs. Children ſhould be taught to chew their food well, and to put nothing into their mouths which it would be dangerous for them to ſwallow. But children are not the only perſons guilty of this imprudence; many adults put pins, nails, and other ſharp-pointed ſubſtances in their mouths upon every occaſion, and ſome even ſleep with the former there all night: a fit of coughing, or twenty other accidents, may force over the ſubſtance before the perſon is aware*.

When any ſubſtance is detained in the gullet, there are two ways of removing it, *viz.* either by extracting it, or puſhing it down.—The ſafeſt and moſt certain way is to extract it; but this is not always the eaſieſt; it may be more eligible ſometimes to thruſt it down, eſpecially when the obſtructing body is of ſuch a nature, that there is no danger from its reception into the ſtomach. The ſubſtances, which may be puſhed down without danger, are all common nouriſhing ones, as bread, fleſh, fruits, and the like. All indigeſtible bodies, as cork, wood, bones, pieces of metal, and ſuch-like, ought, if poſſible, to be extracted, eſpecially if thoſe bodies be ſharp pointed, as pins, needles, fiſh-bones, bits of glaſs, &c.

When ſuch ſubſtances have not paſſed in too deep, we ſhould endeavour to extract them with our fingers, which method often

* A woman, in one of the hoſpitals of this city, lately diſcharged a great number of pins, which ſhe had ſwallowed in the courſe of her buſineſs, through an ulcer in her ſide.

ſucceeds. When they are lower, we muſt make uſe of nippers, or a ſmall pair of forceps, ſuch as ſurgeons uſe. But this attempt to extract rarely ſucceeds, if the ſubſtance be of a flexible nature, and has deſcended far into the gullet.

If the fingers and nippers fail, or cannot be duly applied, crotchets, a kind of hooks, muſt be employed. Theſe may be made at once, by bending a piece of pretty ſtrong iron-wire at one end. It muſt be introduced in the flat way; and, for the better conducting it, there ſhould likewiſe be a curve or bending, at the end it is held by, to ſerve as a kind of handle to it; which has this further uſe, that it may be ſecured by a ſtring tied to it, a circumſtance not to be omitted in any inſtrument employed on ſuch occaſions, to avoid ſuch ill accidents as have ſometimes enſued from theſe inſtruments ſlipping out of the operator's hand. After the crotchet has paſſed below the ſubſtance that obſtructs the paſſage, it is drawn up again, and hooks up the body along with it. The crotchet is alſo very convenient, when a ſubſtance, ſomewhat flexible, as a pin or fiſh-bone, ſticks acroſs the gullet, the hook, in ſuch caſes, ſeizing them about their middle part, crooks, and thus diſengages them; or, if they are very brittle ſubſtances, ſerves to break them.

When the obſtructing bodies are ſmall, and only ſtop up a part of the paſſage, and which may either eaſily elude the hook, or ſtraiten it by their reſiſtance, a kind of rings, made either of wire, wool, or ſilk, may be uſed. A piece of fine wire, of a proper length, may be bent into a circle, about the middle, of about an inch diameter, and the long unbent ſides brought parallel, and near each other: Theſe are to be held in the hand, and the circular part or ring introduced into the gullet, in order to be conducted about the obſtructing body, and ſo to extract it. More flexible rings may be made of wool, thread, ſilk, or ſmall pack-thread, which may be waxed, for their greater ſtrength and conſiſtence. One of theſe is to be tied faſt to a handle of iron-wire, whale-bone, or any kind of flexible wood, and by this means introduced, in order to ſurround the obſtructing ſubſtance, and to draw it out. Several of theſe rings, paſſed through one another, may be uſed, the more certainly to lay hold of the obſtructing body, which may be involved by one, if another ſhould miſs it. Theſe rings have one advantage, which is, that when the ſubſtance to be extracted, is once laid hold of, it may then, by turning the handle, be retained ſo ſtrongly in the ring thus twiſted, as to be moved every way, which muſt, in many caſes, be a conſiderable advantage.

A material employed on theſe occaſions is the ſponge. Its property of ſwelling conſiderably on being wet, is the principal foundation of its uſefulneſs here. If any ſubſtance is ſtopt in the gullet, but without filling up the whole paſſage, a bit of ſponge may be introduced into that part which is unſtopt, and beyond the ſubſtance. The ſponge ſoon dilates, and grows larger in this moiſt ſitu-

ation; and, indeed, the enlargement of it may be forwarded, by making the patient ſwallow a few drops of water. Afterwards it is to be drawn back, by the handle to which it is faſtened, and as it is now too large to return through the ſmall cavity by which it was conveyed in, it draws out the obſtructing body along with it.

The compreſſibility of ſponge is another foundation of its uſefulneſs in ſuch caſes. A pretty large piece of ſponge may be compreſſed or ſqueezed into a ſmall ſize, by winding a ſtring of tape cloſely about it, which may be eaſily unwound, and withdrawn, after the ſponge has been introduced. A bit of ſponge may likewiſe be compreſſed, by a piece of whale-bone ſplit at one end; but this can hardly be introduced in ſuch a manner as not to hurt the patient.

I have often known pins, and other ſharp bodies, which had ſtuck in the throat, brought up, by cauſing the perſon to ſwallow a bit of tough meat tied to a thread, and drawing it quickly up again. This is ſafer than ſwallowing ſponge, and will often anſwer the purpoſe equally well.

When all theſe methods prove unſucceſsful, there remains one more, which is, to make the patient vomit: but this can ſcarcely be of any ſervice, unleſs when ſuch obſtructing bodies are ſimply engaged in, and not hooked or ſtuck into the ſides of the gullet; as in this caſe, vomiting might occaſion ſome further miſchief. If the patient can ſwallow, vomiting may be excited by taking half a drachm or two ſcruples of ipecacuanha in powder, made into a draught. If he is not able to ſwallow, an attempt may be made to excite vomiting, by tickling his throat with a feather; and, if that ſhould not ſucceed, a clyſter of tobacco may be adminiſtered. It is made by boiling an ounce of tobacco in a ſufficient quantity of water: this has often been found to ſucceed, when other attempts to excite vomiting had failed.

When the obſtructing body is of ſuch a nature, that it may with ſafety be puſhed downwards, this may be attempted by means of a wax-candle oiled, and a little heated, ſo as to make it flexible; or a piece of whale-bone, wire, or flexible wood, with a ſponge faſtened to one end.

Should it be impoſſible to extract even thoſe bodies which it is dangerous to admit into the ſtomach, we muſt prefer the leaſt of two evils, and rather run the hazard of puſhing them down, than ſuffer the patient to periſh in a few minutes; and we ought to ſcruple this reſolution the leſs, as a great many inſtances have happened, where the ſwallowing of ſuch hurtful and indigeſtible ſubſtances has been followed by no diſorder.

Whenever it is manifeſt, that all endeavours to extract or puſh down the ſubſtance muſt prove ineffectual, they ſhould be diſcontinued; becauſe the inflammation, occaſioned by perſiſting in them, might be as dangerous as the obſtruction itſelf. Some have died

in conſequence of the inflammation, even after the body which cauſed the obſtruction had been entirely removed.

While the means recommended above are uſed, the patient ſhould often ſwallow, or, if he cannot, he ſhould frequently receive, by injection, through a crooked tube or pipe that may reach down to the gullet, ſome emollient liquor, as warm milk and water, barley-water, or a decoction of mallows. Injections of this kind not only ſoften and ſooth the irritated parts, but, when thrown in with force, are often more ſucceſsful in looſening the obſtruction than all attempts with inſtruments.

When, after all our endeavours, we are obliged to leave the obſtructing body in the part, the patient muſt be treated as if he had an inflammatory diſeaſe. He ſhould be bled, kept upon a low diet, and have his whole neck ſurrounded with emollient poultices. The like treatment muſt alſo be uſed, if there be any reaſon to ſuſpect an inflammation of the paſſages, though the obſtructing body be removed.

A proper degree of agitation has ſometimes looſened the inhering body more effectually than inſtruments. Thus, a blow on the back has often forced up a ſubſtance which ſtuck in the gullet; but this is ſtill more proper and efficacious, when the ſubſtance gets into the wind-pipe. In this caſe, vomiting and ſneezing are likewiſe to be excited. Pins, which ſtuck in the gullet, have been frequently diſcharged, by riding on horſe-back, or in a carriage.

When any indigeſtible ſubſtance has been forced down into the ſtomach, the patient ſhould uſe a very mild and ſmooth diet, conſiſting chiefly of fruits and farinaceous ſubſtances, as puddings, pottage, and ſoups. He ſhould avoid all heating and irritating things, as wine, punch, pepper, and ſuch-like; and his drink ſhould be milk and water, barley-water, or whey.

When the gullet is ſo ſtrongly and fully cloſed, that the patient can receive no food by the mouth, he muſt be nouriſhed by clyſters of ſoup, jelly, and the like.

When the patient is in danger of being immediately ſuffocated, and all hope of freeing the paſſage is vaniſhed, ſo that death ſeems at hand, if reſpiration be not reſtored, the operation of *bronchotomy*, or opening of the wind-pipe, muſt be directly performed. As this operation is neither difficult to an expert ſurgeon, nor very painful to the patient, and is often the only method which can be taken to preſerve life in theſe emergencies, we mention it, but it ſhould only be attempted by perſons ſkilled in ſurgery.

## *Of Drowned Perſons.*

WHEN a perſon has remained above a quarter of an hour under water, there can be no conſiderable hopes of his recovery. But as ſeveral circumſtances may happen to have continued life, in ſuch an unfortunate ſituation, beyond the ordinary term, we ſhould never too ſoon reſign the unhappy object to his fate, but try every method for his relief, as there are many well atteſted proofs of the recovery of perſons to life and health, who had been taken out of the water, apparently dead, and who remained a conſiderable time without exhibiting any ſigns of life.

The firſt thing to be done, after the body is taken out of the water, is, to convey it, as ſoon as poſſible, to ſome convenient place, where the neceſſary operations for its recovery may be performed. In doing this, care muſt be taken not to bruiſe or injure the body, by carrying it in any unnatural poſture, with the head downwards, or the like. If an adult body, it ought to be laid on a bed, or on ſtraw, with the head a little raiſed, and carried on a cart or on men's ſhoulders, and kept in as natural and eaſy a poſition as poſſible. A ſmall body may be carried in the arms.

In attempting to recover perſons apparently drowned, the principal intention to be purſued is, *to reſtore the natural warmth*, upon which all the vital functions depend; and to excite theſe functions by the application of ſtimulants, not only to the ſkin, but likewiſe to the lungs, &c.

Though cold was by no means the cauſe of the perſon's death, yet it will prove an effectual obſtacle to his recovery. For this reaſon, after ſtripping him of his wet clothes, his body muſt be wiped dry, and placed between two blankets, made warm, with the head a little elevated; and no more attendance admitted than are abſolutely neceſſary to execute theſe directions.

To renew the breathing, a ſtrong perſon may blow his own breath into the patient's mouth, with all the force he can, holding his noſtrils at the ſame time. When it can be perceived, by the riſing of the cheſt or belly, that the lungs are filled with air, the perſon ought to deſiſt from blowing, and ſhould preſs the breaſt and belly, ſo as to expel the air again; and this operation may be repeated for ſome minutes, alternately inflating and depreſſing the lungs, ſo as to imitate natural reſpiration.*

If the lungs cannot be inflated in this manner, it may be attempted by blowing through one of the noſtrils, and at the ſame

* Every time the lungs are expanded, electricity ſhould be applied, if a machine can be obtained. This is moſt effectually done about the region of the heart, or between the fourth and fifth ribs. The ſhocks ſhould be frequently repeated, in order to ſtimulate the heart to action. [I. C.]

time, keeping the other close. Dr. Monro, for this purpose, recommends a wooden pipe, fitted at one end for filling the nostril, and at the other for being blown into by a person's mouth, or for receiving the pipe of a pair of bellows, to be employed for the same purpose, if necessary.*

When air cannot be forced into the chest by the mouth or nose, it may be necessary to make an opening into the wind-pipe for this purpose. It is needless, however, to spend time in describing this operation, as it should not be attempted unless by persons skilled in surgery.

The body should now be rubbed with coarse linen cloths, made warm, and as soon as some warm salt, sand, ashes, grains, or such-like, can be procured, they should be diligently used with friction to every part of the body. Strong volatile spirits should be frequently applied to the nose, and stimulating powders, as that of tobacco, may be blown up the nostrils.† Tissot mentions an instance of a girl who was restored to life, after she had been taken out of the water, swelled, bloated, and, to all appearance dead, by laying her naked upon hot ashes, covering her with others equally hot, putting a bonnet round her head, and a stocking round her neck stuffed with the same, and heaping coverings over all. After she had remained half an hour in this situation, her pulse returned, she recovered speech, and cried out, *I freeze, I freeze;* a little cherry-brandy was given her, and she remained buried, as it were, under the ashes for eight hours; afterwards she was taken out, without any other complaint except that of lassitude or weariness, which went off in a few days. The Doctor mentions, likewise, an instance of a man who was restored to life, after he had remained six hours under water, by the heat of a dunghill.

Till the patient shews some signs of life, and is able to swallow, it would be useless and even dangerous to pour liquors into his mouth. His lips, however, and tongue, may be frequently wet with a feather dipt in warm brandy or other strong spirits; and, as soon as he has recovered the power of swallowing, a little warm wine, or some other cordial, ought, every now and then, to be administered.‡

Some recommend a vomit after the patient is a little re-animated; but if he can be made to puke, without the sickening draught, it

* This can be effected with more certainty by introducing a large flexible tube or catheter, perfectly open at both extremities, into the wind-pipe, and fixing the pipe of a bellows to the outer end. This mode of inflating the lungs has the advantage over that advised by our judicious author, by expanding the lungs without distending the stomach. [I. C.]

† This practice must be persisted in as long as there is the most distant prospect of returning life. [I. C.]

‡ Bleeding, purging, and even clystering, before and after signs of life appear, must be employed with extreme caution, and never without the advice of a physician. [I. C.]

will be more safe: this may generally be done by tickling the throat and fauces with an oiled feather, or some other soft substance, which will not injure the parts. Tissot, in this case, recommends the oxymel of squills, a table-spoonful of which, diluted with water, may be given every quarter of an hour, till the patient has taken five or six doses. Where that medicine is not at hand, a strong infusion of sage, camomile-flowers, or *carduus benedictus*, sweetened with honey, or some warm water, with the addition of a little salt, may, he says, supply its place. The Doctor does not intend that any of these things should be given in such quantity as to occasion vomiting. He thinks emetics, in this situation, are not expedient.

We are by no means to discontinue our assistance as soon as the patients discover some tokens of life, since they sometimes expire after these first appearances of recovering. The warm and stimulating applications are still to be continued, and small quantities of some cordial liquor ought frequently to be administered. Lastly, though the person should be manifestly re-animated, there sometimes remain an oppression, a cough, and feverishness, which effectually constitute a disease. In this case, it will be necessary to bleed the patient in the arm, and to cause him to drink plentifully of barley-water, elder-flower tea, or any other soft pectoral infusions.

Such persons as have the misfortune to be deprived of the appearances of life, by a fall, a blow, suffocation, or the like, must be treated nearly in the same manner as those who have been, for some time, under water. I once attended a patient who was so stunned, by a fall from a horse, that, for above six hours, he scarcely exhibited any signs of life; yet this man, by being bled, and proper methods taken to keep up the vital warmth, recovered, and, in a few days, was perfectly well. Dr. Alexander gives an instance to the same purpose, in the Edinburgh Physical and Literary Essays, of a man who was, to all appearance, killed by a blow on the breast, but recovered upon being immersed, for some time, in warm water. These, and other instances of a similar nature, which might be adduced, amount to a full proof of this fact, that many of those unhappy persons who loose their lives by falls, blows, and other accidents, might be saved *by the use of proper means duly persisted in.*

## *Of Noxious Vapours.*

AIR may be many ways rendered noxious, or even destructive to animals. This may either happen from its vivifying principle being destroyed, or from subtle exhalations with which it is impregnated. Thus air that has passed through burning fuel is nei-

ther capable of ſupporting fire nor the life of animals. Hence the danger of ſleeping in cloſe chambers, with charcoal fires. Some, indeed, ſuppoſe the danger here proceeds from the ſulphureous oil contained in the charcoal, which is ſet at liberty and diffuſed all over the chamber; while others imagine it is owing to the air of the room being charged with phlogiſton. Be this as it may, it is a ſituation carefully to be avoided. Indeed, it is dangerous to ſleep in a ſmall apartment with a fire of any kind. I lately ſaw four perſons, who had been ſuffocated by ſleeping in an apartment where a ſmall fire of coal had been left burning.

The vapour which exhales from wine, cyder, beer, or other liquors, in the ſtate of fermentation, contains ſomething poiſonous, which kills, in the ſame manner, as the vapour of coal. Hence, there is always danger in going into cellars where a large quantity of theſe liquors is in a ſtate of fermentation, eſpecially if they have been cloſe ſhut up for ſome time. There have been many inſtances of perſons ſtruck dead on entering ſuch places, and of others who have with difficulty eſcaped.

When ſubterraneous caves, that have been very long ſhut, are opened, or when deep wells are cleaned, which have not been emptied for ſeveral years, the vapours ariſing from them produce the ſame effects. For this reaſon, no perſon ought to venture into a well, pit, cellar, or any place that is damp, and has been long ſhut up, till the air has been ſufficiently purified, by burning gunpowder in it. It is eaſy to know when the air of ſuch places is unwholeſome, by letting down a lighted candle, throwing in burning fuel, or the like. If theſe continue to burn, people may ſafely venture in; but where they are ſuddenly extinguiſhed, no one ought to enter till the air has been firſt purified by fire.

The offenſive ſtink of lamps and of candles, eſpecially when their flames are extinguiſhed, operate like other vapours, though with leſs violence, and leſs ſuddenly. There have, however, been inſtances of people killed by the fumes of lamps which had been extinguiſhed in a cloſe chamber, and perſons of weak delicate breaſts generally find themſelves quickly oppreſſed in apartments illuminated with many candles.

Such as are ſenſible of their danger in theſe ſituations, and retreat ſeaſonably from it, are generally relieved as ſoon as they get into the open air, or, if they have any remaining uneaſineſs, a little water and vinegar, or lemonade, drank hot, affords them relief. But when they are ſo far poiſoned, as to have loſt their feeling and underſtanding, the following means muſt be uſed for their recovery:

The patient ſhould be expoſed to a very pure, freſh, and open air; and volatile ſalts, or other ſtimulating ſubſtances, held to his noſe. He ſhould next be bled in the arm, or if that does not ſucceed, in the neck. His legs ought to be put into warm water, and well rubbed. As ſoon as he can ſwallow, ſome lemonade, or wa-

ter and vinegar, with the addition of a little nitre, may be given him.

Sharp clyſters may be made, by adding to the common clyſter, ſyrup of buckthorn and tincture of ſenna, of each two ounces; or, in their ſtead, half an ounce of Venice turpentine diſſolved in the yolk of an egg. Should theſe things not be at hand, two or three large ſpoonfuls of common ſalt may be put into the clyſter. The ſame means, if neceſſary, which were recommended in the former part of this chapter, may be uſed to reſtore the circulation, warmth, &c.

Mr. Toſſach, ſurgeon at Alloa, relates the caſe of a man ſuffocated by the ſteam of burning coal, whom he recovered by blowing his breath into the patient's mouth, bleeding him in the arm, and cauſing him to be well rubbed and toſſed about. And Dr. Frewen, of Suſſex, mentions the caſe of a young man who was ſtupified by the ſmoke of ſea-coal, but was recovered by being plunged into cold water, and afterwards laid in a warm bed.

The practice of plunging perſons ſuffocated by noxious vapours in cold water, would ſeem to be ſupported by the common experiment of ſuffocating dogs in the *grotto del cani*, and afterwards recovering them, by throwing them into the neighbouring lake.

## *Effects of extreme Cold.*

WHEN cold is extremely ſevere, and a perſon is expoſed to it for a long time, it proves mortal, in conſequence of its ſtopping the circulation in the extremities, and forcing too great a proportion of blood towards the brain; ſo that the patient dies of a kind of apoplexy, preceded by great ſleepineſs. The traveller, in this ſituation, who finds himſelf begin to grow drowſy, ſhould redouble his efforts to extricate himſelf from the imminent danger he is expoſed to. This ſleep, which he might conſider as ſome alleviation of his ſufferings, would, if indulged, prove his laſt.

Such violent effects of cold are not common in this country; it frequently happens, however, that the hands or feet of travellers are ſo benumbed or frozen, as to be in danger of a mortification, if proper means are not uſed to prevent it. The chief danger in this ſituation ariſes from the ſudden application of heat. It is very common, when the hands or feet are pinched with cold, to hold them to the fire; yet reaſon and obſervation ſhow, that this is a moſt dangerous and imprudent practice.

If frozen meat, fruits, or roots of any kind, be brought near the fire, or put into warm water, they will be deſtroyed, by rottenneſs, or a kind of mortification; and the only way to recover them, is

to immerſe them, for ſome time, in very cold water. The ſame obſervation holds with regard to animals in this condition.

When the hands or feet are greatly benumbed with cold, they ought either to be immerſed in cold water, or rubbed with ſnow, till they recover their natural warmth and ſenſibility: after which, the perſon may be removed into an apartment a little warmer, and may drink ſome cups of tea, or an infuſion of elder-flowers ſweetened with honey. Every perſon may obſerve, when his hands were even but ſlightly affected with cold, that the beſt way to warm them was by waſhing them in cold water, and continuing to rub them well for ſome time.

When a perſon has been ſo long expoſed to the cold, that all appearances of life are gone, it will be neceſſary to rub him all over with ſnow or cold water; or, what will anſwer better, to immerſe him in a bath of the very coldeſt water. There is the greateſt encouragement to perſiſt in the uſe of theſe means, as we are aſſured that perſons who had remained in the ſnow, or had been expoſed to the freezing air during five or ſix ſucceſſive days, and who had diſcovered no marks of life for ſeveral hours, have, nevertheleſs, been revived.

I have always thought, that the whitloes, kibes, chilblains, and other inflammations of the extremities, which are ſo common among the peaſants, in the cold ſeaſon, were chiefly occaſioned by their ſudden tranſitions from cold to heat. After they have been expoſed to an extreme degree of cold, they immediately apply their hands and feet to the fire, or, if they have occaſion, plunge them into warm water; by which means, if a mortification does not happen, an inflammation ſeldom fails to enſue. Moſt of the ill conſequences from this quarter might be eaſily avoided, by only obſerving the precautions mentioned above.

## *The Effects of extreme Heat*

ARE no leſs fatal, and much more ſudden than thoſe of cold. In hot countries, people frequently drop down dead in the ſtreets, exhauſted with heat and fatigue. In this caſe, if any warm cordial can be poured into the mouth, it ought to be done. If this cannot be effected, they may be thrown up in form of a clyſter. Volatile ſpirits, and other things of a ſtimulating nature, may be applied to the ſkin, which ſhould be well rubbed with a fleſh-bruſh, a coarſe cloth, or other ſtimulating things.

## *Effects of Drinking Cold Water in Warm Weather.*

WE have opportunities almoſt every ſummer, of obſerving the deleterious effects of cold water on the labouring part of our inhabitants, and in particular on foreigners newly arrived in this country, who are unacquainted with the danger, which commonly enſue, from ſwallowing large draughts of cold water, when the body is heated from exerciſe or labour.

This fluid ſhould never be drank cold in a warm day, even when mixed with ſpirits, or any other liquor, as it is always accompanied with imminent danger, which frequently manifeſts itſelf during the time of drinking, or immediately after; when the patient is ſeized with vertigo, dimneſs of ſight, violent pain, and cramp in the ſtomach, and ſometimes will fall down at the pump, or ſtagger away to throw himſelf down in the ſhade. There he becomes reſtleſs, and toſſes about in excruciating pain, attended with difficulty of breathing, retraction of the navel, the face ſuffuſed and turged with blood, nauſea, and violent efforts to vomit. As the diſeaſe advances, the vigour declines, and the patient, if not relieved ſoon, exhibits the phænomena of dying. The breathing becomes more interrupted and laborious, the cheeks and noſtrils expand at every expiration, with a rattling noiſe in the throat: The face at times looks pale and deadly, the patient becomes delirious, and the tone of the voice much altered; the extremities cold, pulſe quick, and almoſt imperceptible at the wriſt, with an impoſſibility to ſwallow. At length, death takes place in a ſhort time from the attack.

MEDICINE.——The chief remedies in this complaint, are bleeding, and large doſes of laudanum. If the pulſe is full and ſtrong, with a fluſhed appearance of the face, twelve or fourteen ounces of blood ſhould be taken from the arm, in order to relieve the difficulty of breathing, and diminiſh the flow of blood to the head; during this evacuation, forty or fifty drops of laudanum, or a quantity proportioned to the age of the patient, ſhould be adminiſtered, and in half an hour, a ſmaller or larger doſe muſt be repeated, according to the urgency of the ſymptoms. If laudanum cannot be procured, three or four ounces of rum or brandy may be ſubſtituted. If the patient cannot ſwallow, a tube, or a flexible catheter ſhould be paſſed down the oſophagus or gullet, and the laudanum or brandy poured through it into the ſtomach. When this operation cannot be performed, clyſters of warm water, with laudanum, muſt be injected. Theſe remedies frequently ſucceed, particularly if they are applied early in the complaint.

When aſſiſtance is called, and the powers of life appear ſuſpended, every means muſt be exerted to reſtore them, as directed in the chapter *drowning*.

## CHAPTER LVI.

### *Of Fainting Fits, and other Cases which require immediate Assistance.*

STRONG and healthy persons, who abound with blood, are often seized with sudden fainting fits, after violent exercise, drinking freely of warm, or strong liquors, expofure to great heat, intense application to study, or the like.

In such cases, the patient must be made to smell to some vinegar. His temples, forehead, and wrists ought, the same time, to be bathed with vinegar, mixed with an equal quantity of warm water; and two or three spoonfuls of vinegar, with four or five times as much water, may, if he can swallow, be poured into his mouth.

If the fainting proves obstinate, or degenerates into an abolition of feeling and understanding, the patient must be bled. After the bleeding, a clyster will be proper, and then he should be kept easy and quiet, only giving him every half hour a cup or two of an infusion of any mild vegetable, with the addition of a little sugar and vinegar.

When swoonings, which arise from this cause, occur frequently in the same person, he should, in order to escape them, confine himself to a light diet, consisting chiefly of bread, fruits and other vegetables. His drink ought to be water or small beer. He should sleep but moderately, and take much exercise.

But fainting fits proceed much oftener from a defect than an excess of blood. They are ready to happen after great evacuations of any kind, obstinate watching, want of appetite, or such-like. In these, an almost directly opposite course to that mentioned above, must be pursued.

The patient should be laid in bed, with his head low, and being covered, should have his legs, thighs, arms, and his whole body, rubbed strongly with hot flannels. Hungary water, volatile salts, or strong smelling herbs, as rue, mint, or rosemary, may be held to his nose. His mouth may be wet with a little rum or brandy; and, if he can swallow, some hot wine, mixed with sugar and cinnamon, which is an excellent cordial, may be poured into his mouth. A compress of flannel dipt in hot wine or brandy, must be applied to the pit of his stomach, and warm bricks, or bottles filled with hot water, laid to the feet.

As soon as he recovers a little, he should take some strong soup or broth, or a little bread or biscuit soaked in hot-spiced wine. To prevent the return of the fits, he ought to take often, but in small quantities, some light, yet strengthening nourishment, as panado made with soup instead of water, new laid eggs, lightly poached, chocolate, light roast-meats, jellies, and such-like.

Fainting-fits, which are the effect of bleeding, or of the violent operation of purges, belong to this claſs. Such as happen after artificial bleeding, generally terminate as ſoon as the patient is laid upon the bed; indeed, perſons ſubject to this kind, ſhould always be bled lying, in order to prevent it. Should the fainting, however, continue longer than uſual, volatile ſpirits may be held to the noſe, and rubbed on the temples, &c.

When fainting is the effect of too ſtrong or acrid purges or vomits, the patient muſt be treated, in all reſpects, as if he had taken a poiſon. He ſhould be made to drink plentifully of milk, warm-water, and oil, barley-water, or ſuch-like; emollient clyſters will be proper, and his ſtrength ſhould afterwards be recruited, by giving him generous cordials, and anodyne medicines.

Faintings are often occaſioned by indigeſtion. This may either proceed from the quantity or quality of the food. When the former of theſe is the cauſe, the cure will be beſt performed by vomiting, which may be promoted by cauſing the patient to drink a weak infuſion of camomile-flowers, carduus benedictus, or the like. When the diſorder proceeds from the nature of the food, the patient, as in the caſe of weakneſs, muſt be revived by ſtrong ſmells, &c. after which he ſhould be made to ſwallow a large quantity of light, warm fluid, which may ſerve to drown the offending matter, to ſoften its acrimony, and either to effect a diſcharge of it by vomiting, or force it down into the inteſtines.

Even diſagreeable ſmells will ſometimes occaſion ſwooning, eſpecially in people of weak nerves. When this happens, the patient ſhould be carried into the open air, have ſtimulating things held to his noſe, and thoſe ſubſtances, which are diſagreeable to him, ought immediately to be removed. We have already taken notice of ſwoonings which ariſe from nervous diſorders.

Fainting-fits often happen in the progreſs of diſeaſes. In the beginning of putrid diſeaſes they generally denote an oppreſſion at ſtomach, or a maſs of corrupted humours, and they ceaſe after evacuations either by vomit or ſtool. When they occur at the beginning of malignant fevers, they indicate great danger. In each of theſe caſes, vinegar uſed both externally and internally is the beſt remedy during the paroxyſm, and plenty of lemon-juice and water after it. Swoonings which happen in diſeaſes accompanied with great evacuations, muſt be treated like thoſe which are owing to weakneſs, and the evacuations ought to be reſtrained. When they happen towards the end of a violent fit of an intermitting fever, or at that of each exacerbation of a continual fever, the patient muſt be ſupported by ſmall draughts of wine and water.

Delicate and hyſteric women are very liable to ſwooning or fainting-fits after delivery. Theſe might be often prevented, by generous cordials, and the admiſſion of freſh air. When they are occaſioned by exceſſive flooding, it ought, by all means, to be reſtrained. They are generally the effect of mere weakneſs or ex-

hauſtion. Dr. Engleman relates the caſe of a woman in child-bed, "who, after being happily delivered, ſuddenly fainted, and lay upwards of a quarter of an hour apparently dead. A phyſician was ſent for; her own maid, in the meanwhile, being out of patience at his delay, attempted to aſſiſt herherſelf, and extending herſelf upon her miſtreſs, applied her mouth to her's, blew in as much breath as ſhe poſſibly could, and in a very ſhort time the exhauſted woman awaked as out of a profound ſleep; when proper things being given her, ſhe ſoon recovered. The maid being aſked how ſhe came to think of this expedient, ſaid ſhe had ſeen it practiſed at Altenburgh, by midwives, upon children, with the happieſt effect."

We mention this caſe, chiefly, that other midwives may be induced to follow ſo laudable an example. Many children are born without any ſigns of life, and others expire ſoon after the birth, who might, without all doubt, by proper care, be reſtored to life.

From whatever cauſe fainting-fits proceed, freſh air is always of the greateſt importance to the patient. By not attending to this circumſtance, people often kill their friends while they are endeavouring to ſave them. Alarmed at the patient's ſituation, they call in a crowd of people to his aſſiſtance, or perhaps to witneſs his exit, whoſe breathing exhauſts the air, and increaſes the danger. There is not the leaſt doubt, but this practice, which is very common among the lower ſort of people, often proves fatal, eſpecially to the delicate, and ſuch perſons as fall into fainting-fits from mere exhauſtion, or the violence of ſome diſeaſe. No more perſons ought ever to be admitted into the room where a patient lies in a ſwoon, than are abſolutely neceſſary for his aſſiſtance, and the windows of the apartment ſhould always be opened, at leaſt as far as to admit a ſtream of freſh air.

Perſons ſubject to frequent ſwoonings, or fainting-fits, ſhould neglect no means to remove the cauſe of them, as their conſequences are always injurious to the conſtitution. Every fainting-fit leaves the perſon in dejection and weakneſs; the ſecretions are thereby ſuſpended, the humours diſpoſed to ſtagnation, coagulations and obſtructions are formed, and if the motion of the blood be totally intercepted, or very conſiderably checked, *polypuſes* are ſometimes formed in the heart or larger veſſels. The only kind of ſwoonings not to be dreaded, are thoſe which ſometimes mark the criſis in fevers; yet even theſe ought, as ſoon as poſſible, to be removed.

## *Of Intoxication.*

THE effects of intoxication are often fatal. No kind of poiſon kills more certainly than an over-doſe of ardent ſpirits. Sometimes, by deſtroying the nervous energy, they put an end to life at once; but in general, their effects are more ſlow, and in many reſpects, ſimilar to thoſe of opium. Other kinds of intoxicating liquors may prove fatal when taken to exceſs, as well as ardent ſpirits; but they may generally be diſcharged by vomiting, which ought always to be excited when the ſtomach is overcharged with liquor.

More of thoſe unhappy perſons, who die intoxicated, loſe their lives from an inability to conduct themſelves, than from the deſtructive quality of the liquor. Unable to walk, they tumble down, and lie in ſome awkward poſture, which obſtructs the circulation or breathing, and often continue in this ſituation till they die. No drunk perſon ſhould be left by himſelf, till his clothes have been looſened, and his body laid in ſuch a poſture as is moſt favourable for continuing the vital motions, diſcharging the contents of the ſtomach, &c. The beſt poſture for diſcharging the contents of the ſtomach is, to lay the perſon upon his belly; when aſleep, he may be laid on his ſide, with his head a little raiſed, and particular care muſt be taken that his neck be no way bent, twiſted, or have any thing too tight about it.

The exceſſive degree of thirſt occaſioned by drinking ſtrong liquors, often induces people to quench it by taking what is hurtful. I have known fatal conſequences from drinking freely of milk after a debauch of wine or four punch: theſe acid liquors, together with the heat of the ſtomach, having coagulated the milk, in ſuch a manner, that it could never be digeſted. The ſafeſt drink after a debauch is, water with a toaſt, tea, infuſions of balm, ſage, barley-water, and ſuch-like. If the perſon wants to vomit, he may drink a weak infuſion of camomile-flowers, or lukewarm water and oil; but, in this condition, vomiting may generally be excited by only tickling the throat with the finger or a feather.

Inſtead of giving a detail of all the different ſymptoms of intoxication which indicate danger, and propoſing a general plan of treatment for perſons in this ſituation, I ſhall briefly relate the hiſtory of a caſe which lately fell under my own obſervation, wherein moſt of thoſe ſymptoms uſually reckoned dangerous concurred, and where the treatment was ſucceſsful.

A young man, about fifteen years of age, had, for a hire, drank ten glaſſes of ſtrong brandy. He ſoon after fell aſleep, and continued in that ſituation for near twelve hours, till at length, his uneaſy manner of breathing, the coldneſs of the extremities, and other threatening ſymptoms, alarmed his friends, and made them ſend for me. I found him ſtill ſleeping, his countenance ghaſtly, and his

ſkin covered with a cold, clammy ſweat. Almoſt the only ſigns of life remaining, were, a deep laborious breathing, and a convulſive motion or agitation of his bowels.

I tried to rouſe him, but in vain, by pinching, ſhaking, applying volatile ſpirits, and other ſtimulating things to his noſe, &c. A few ounces of blood were likewiſe taken from his arm, and a mixture of vinegar and water was poured into his mouth; but, as he could not ſwallow, very little of this got into the ſtomach. None of theſe things having the leaſt effect, and the danger ſeeming to increaſe, I ordered his legs to be put into warm water, and a ſharp clyſter to be immediately adminiſtered. This gave him a ſtool, and was the firſt thing that relieved him. It was afterwards repeated with the ſame happy effect, and ſeemed to be the chief cauſe of his recovery. He then began to ſhew ſome ſigns of life, took drink when it was offered him, and came gradually to his ſenſes. He continued, however, for ſeveral days weak and feveriſh, and complained much of a ſoreneſs in his bowels, which gradually went off, by a ſlender diet, and cool mucilaginous liquors.

This young man would probably have been ſuffered to die without any aſſiſtance being called, had not a neighbour, a few days before, who had been adviſed to drink a bottle of ſpirits to cure him of an ague, expired under very ſimilar circumſtances.

## *Suffocation and Strangling*

MAY ſometimes proceed from an infraction of the lungs, produced by viſcid, clammy humours, or a ſpaſmodic affection of that organ. Perſons who feed groſsly, and abound in rich blood, are very liable to ſuffocating fits from the former of theſe cauſes. Such ought, as ſoon as they are attacked, to be bled, to receive an emollient clyſter, and to take frequently, a cup of diluting liquor with a little nitre in it. They ſhould likewiſe receive the ſtreams of hot vinegar into their lungs by breathing.

Nervous and aſthmatic perſons are moſt ſubject to ſpaſmodic affections of the lungs. In this caſe, the legs ſhould be immerſed in warm water, and the ſteams of vinegar applied as above. Warm diluting liquors ſhould likewiſe be drank; to a cup of which, a tea-ſpoonful of the paregoric elixir may occaſionally be added. Burnt paper, feathers, or leather, may be held to the patient's noſe, and freſh air ſhould be freely admitted to him. Infants are often ſuffocated by the careleſſneſs or inattention of their nurſes*. An in-

* Theſe accidents are not always the effects of careleſſneſs. I have known an infant over-laid by its mother being ſeized in the night with an hyſteric fit. This ought to ſerve as a caution againſt employing hyſ-

fant, when in bed, ſhould always be laid ſo, that it cannot tumble down with its head under the bed-clothes; and, when in a cradle, its face ought never to be covered. A ſmall degree of attention to theſe two ſimple rules would ſave the lives of many infants, and prevent others from being rendered weak and ſickly all their lives, by injuries done to their lungs.

Inſtead of laying down a plan for the recovery of infants who are ſuffocated, or overlaid by the nurſes, I ſhall give the hiſtory of a caſe related by Monſieur Janin, of the Royal College of Surgery at Paris, as it was attended with ſucceſs, and contains almoſt every thing that can be done on ſuch occaſions.

A nurſe having had the misfortune to over-lay a child, he was called in, and found the infant without any ſigns of life; no pulſation in the arteries, no reſpiration, the face livid, the eyes open, dull, and tarniſhed, the noſe full of ſnivel, the mouth gaping; in ſhort, it was almoſt cold. Whilſt ſome linen cloths and a parcel of aſhes were warming, he had the boy unſwathed, and laid him in a warm bed, and on the right ſide. He then was rubbed all over with fine linen, for fear of fretting his tender and delicate ſkin. As ſoon as the aſhes had received their due degree of heat, Mr. Janin burried him in them, except the face, placed him on the ſide oppoſite to that on which he had been at firſt laid, and covered him with a blanket. He had a bottle of *eau de luce* in his pocket, which he preſented to his noſe from time to time; and between whiles, ſome puffs of tobacco were blown up his noſtrils: to theſe ſucceeded the blowing into his mouth, and ſqueezing tight his noſe. Animal heat began to be excited gradually; the pulſations of the temporal artery were ſoon felt, the breathing became more frequent and free, and the eyes cloſed and opened alternately. At length, the child fetched ſome cries, expreſſive of his want of the breaſt, which being applied to his mouth, he catched at it with avidity, and ſucked as if nothing had happened to him. Though the pulſations of the arteries, were, by this time, very well re-eſtabliſhed, and it was hot weather, yet Mr. Janin thought it adviſable to leave his little patient three-quarters of an hour longer under the aſhes. He was afterwards taken out, cleaned, and dreſſed as uſual; to which a gentle ſleep ſucceeded, and he continued perfectly well.

Mr. Janin mentions, likewiſe, an example of a young man who had hanged himſelf through deſpair, to whom he adminiſtered help, as effectually as in the preceding caſe.

Mr. Glover, ſurgeon in Doctors Commons, London, relates the caſe of a perſon who was reſtored to life after twenty-nine minutes hanging, and continued in good health for many years after.

The principal means uſed to reſtore this man to life, were, opening the temporal artery, and the external jugular; rubbing the

teric women as nurſes; and ſhould likewiſe teach ſuch women, never to lay an infant in the ſame bed with themſelves, but in a ſmall adjacent one.

back, mouth, and neck, with a quantity of volatile ſpirits and oil; adminiſtering the tobacco clyſter, by means of lighted pipes, and ſtrong frictions of the legs and arms. This courſe had been continued for about four hours, when an inciſion was made into the wind-pipe, and air blown ſtrongly through a canula into the lungs. About twenty minutes after this, the blood at the artery began to run down the face, and a ſlow pulſe was juſt perceptible at the wriſt. The frictions were continued for ſome time longer; his pulſe became more frequent, and his mouth and noſe being irritated with ſpirit of ſal ammoniac, he opened his eyes. Warm cordials were then adminiſtered to him, and in two days, he was ſo well, as to be able to walk eight miles.

## *Of Perſons falling into Convulſion Fits.*

THESE often conſtitute the laſt ſcene of acute or chronic diſorders. When this is the caſe, there can remain but ſmall hopes of the patient's recovery after falling into a fit. But when a perſon, who appears to be in perfect health, is ſuddenly ſeized with a convulſion fit, and ſeems to expire, attempts ought to be made to reſtore him to life. Infants are moſt liable to convulſions, and are often carried off very ſuddenly, by one or more fits about the time of teething. There are many well-authenticated accounts of infants having been reſtored to life, after they had, to all appearance, expired in convulſions; but we ſhall only relate the following inſtance, mentioned by Dr. Johnſon, in his pamphlet *on the practicability of recovering perſons viſibly dead.*

In the pariſh of St. Clements in Colcheſter, a child of ſix months old, lying upon its mother's lap, having had the breaſt, was ſeized with a ſtrong convulſion fit, which laſted ſo long, and ended with ſo total a privation of motion in the body, lungs, and pulſe, that it was deemed abſolutely dead. It was ſtripped, laid out, the paſſing-bell ordered to be tolled, and a coffin to be made: but a neighbouring gentlewoman, who uſed to admire the child, hearing of its ſudden death, haſtened to the houſe, and upon examining, found it not cold, its joints limber, and fancied, that a glaſs ſhe held to its mouth and noſe was a little damped with the breath; upon which ſhe took the child in her lap, ſat down before the fire, rubbed it, and kept it in gentle agitation. In a quarter of an hour ſhe felt the heart begin to beat faintly; ſhe then put a little of the mother's milk into its mouth, continued to rub its palms and ſoles, found the child begin to move, and the milk was ſwallowed; and in another quarter of an hour, ſhe had the ſatisfaction of reſtoring, to its diſconſolate mother, the babe quite recovered, eager to lay hold of the breaſt, and able to ſuck again. The

child throve, had no more fits, is grown up, and at preſent alive. Theſe means, which are certainly in the power of every perſon, were ſufficient to reſtore to life, an infant to all appearance dead, and who, in all probability, but for the uſe of theſe ſimple endeavours, would have remained ſo. There are many other things which might be done in caſe the above ſhould not ſucceed; as rubbing the body with ſtrong ſpirits, covering it with warm aſhes or ſalt, blowing air into the lungs, throwing up warm ſtimulating clyſters, or the ſmoke of tobacco, into the inteſtines, and ſuchlike.

When children are dead-born, or go off in a fit ſoon after the birth, the ſame means ought to be uſed for their recovery, as in circumſtances ſimilar to thoſe mentioned above. Theſe directions may likewiſe be extended to adults, attention being always paid to the age and other circumſtances of the patient.

The foregoing caſes and obſervations afford ſufficient proof of the ſucceſs which may attend the endeavours of perſons totally ignorant of medicine, in aſſiſting thoſe who have life ſuſpended by an accident or diſeaſe. Many facts of a ſimilar nature might be adduced, were it neceſſary; but theſe, it is hoped, will be ſufficient to call up the attention of the public, and to excite the humane and benevolent, to exert their utmoſt endeavours for the preſervation of their fellow men.

*The Society for the recovery of drowned perſons*, inſtituted at Amſterdam, in the year 1767, had the ſatisfaction to find that 150 perſons, in the ſpace of four years, had been ſaved by the means pointed out by them, many of whom owed their preſervation to peaſants, and people of no medical knowledge. But the means uſed with ſo much efficacy in recovering drowned perſons are, with equal ſucceſs, applicable to a number of caſes where the powers of life ſeem in reality to be only ſuſpended, and to remain capable of renewing all their functions, on being put into motion again. It is ſhocking to reflect, that for want of this conſideration many perſons have been committed to the grave, in whom the principles of life might have been revived.

The caſes wherein ſuch endeavours are moſt likely to be attended with ſucceſs, are all thoſe called ſudden deaths from an inviſible cauſe, as apoplexies, hyſterics, faintings, and many other diſorders, wherein perſons, in a moment, ſink down and expire. The various caſualties in which they may be tried, are ſuffocations, from the ſulphureous damps of mines, coal-pits, &c.; the unwholeſome air of long unopened wells or caverns; the noxious vapours ariſing from fermenting liquors; the ſteams of burning charcoal; ſulphureous mineral acids; arſenical effluvia, &c.

The various accidents of drowning, ſtrangling, and apparent deaths, by blows, falls, hunger, cold, &c. likewiſe furniſh opportunities of trying ſuch endeavours. Thoſe, perhaps, who to appearance are killed by lightning, or by any violent agitation of the

paſſions, as fear, joy, ſurpriſe, and ſuch-like, might alſo be frequently recovered by the uſe of proper means, as blowing ſtrongly into their lungs, &c.

The means to be uſed for the recovery of perſons ſuddenly deprived of life, are nearly the ſame in all caſes; they are practicable by every one who happens to be preſent at the accident, and require no great expenſe, and leſs ſkill. The great aim is to reſtore the warmth and vital motions. This may in general be attempted by means of heat, frictions, bleeding, blowing air into the lungs, adminiſtering clyſters and generous cordials. Theſe muſt be varied according to circumſtances. Common ſenſe, and the ſituation of the patient, will ſuggeſt the proper manner of conducting them. Above all, we recommend perſeverance. People ought never to deſpair on account of diſcouraging circumſtances, or to leave off their endeavours as long as there is the leaſt hope of ſucceſs. Where much good, and no hurt can be done, no one ought to grudge his labour.

## CHAPTER LVII.

### *Cautions concerning Cold Bathing, and Drinking the Mineral Waters.*

IT is now faſhionable for perſons of all ranks to plunge into the ſea, and drink the mineral waters, I am deſirous of rendering this work more extenſively uſeful, by ſome practical remarks on theſe active and uſeful medicines.

No part of the practice of medicine is of greater importance, or merits more the attention of the phyſician, as many lives are loſt, and numbers ruin their health, by cold bathing, and an imprudent uſe of mineral waters.

Without a proper diſcrimination with regard to the diſeaſe and conſtitution of the patient, the moſt powerful medicine is more likely to do harm than good. The ſame phyſician, who, by cold bathing, cured Auguſtus, by an imprudent uſe of the ſame medicine, killed his heir. This induced the Roman ſenate to make laws for regulating the baths, and preventing the numerous evils which aroſe from an imprudent and promiſcuous uſe of thoſe elegant and faſhionable pieces of luxury. But as no ſuch laws exiſt in this coun-

try, every one does that which is right in his own eyes, and of courſe many muſt do wrong.

People are apt to imagine that the ſimple element of water can do no hurt, and that they may plunge into it at any time with impunity. In this, they are much miſtaken. I have known apoplexies occaſioned by going into the cold bath, fevers excited by ſtaying too long in it, and other maladies ſo much aggravated by its continued uſe, that they could never be wholly eradicated. Nor are examples wanting, either in ancient or modern times, of the baneful conſequences which have ariſen from an injudicious application of the warm bath; but as warm baths are not ſo common in this country, and are ſeldom uſed but under the direction of a phyſician, I ſhall not enlarge on that part of the ſubject.

Immerſion in cold water is a cuſtom which lays claim to the moſt remote antiquity: indeed, it muſt have been coeval with man himſelf. The neceſſity of water for the purpoſes of cleanlineſs, and the pleaſure ariſing from its application to the body in hot countries, muſt, very early, have recommended it to the human ſpecies. Even the example of other animals was ſufficient to give the hint to man. By inſtinct, many of them are led to apply cold water in this manner; and ſome, when deprived of its uſe, have been known to languiſh, and even to die.

The cold bath recommends itſelf in a variety of caſes, and is peculiarly beneficial to the inhabitants of populous cities, who indulge in idleneſs, and lead ſedentary lives. In perſons of this deſcription, the action of the ſolids is always too weak, which induces a languid circulation, a crude indigeſted maſs of humours, and obſtructions in the capillary veſſels and glandular ſyſtem. Cold water, from its gravity as well as its tonic power, is well calculated either to obviate or remove theſe ſymptoms. It accelerates the motion of the blood, promotes the different ſecretions, and gives permanent vigour to the ſolids. But all theſe important purpoſes will be more eſſentially anſwered by the application of ſalt water. This ought to be preferred on account of its ſuperior gravity, and for its greater power of ſtimulating the ſkin, which promotes the perſpiration, and prevents the patient from catching cold.

Cold bathing is more likely to prevent, than to remove obſtructions of the glandular or lymphatic ſyſtem. Indeed, when theſe have arrived at a certain pitch, they are not to be removed by any means. In this caſe, the cold bath will only aggravate the ſymptoms, and hurry the patient into the grave. It is therefore of the utmoſt importance, previous to the patient's entering upon the uſe of the cold bath, to determine whether or not he labours under any obſtinate obſtructions of the lungs or other viſcera; and

where this is the caſe, cold bathing ought ſtrictly to be prohited*.

In what is called a plethoric ſtate, or too great a fulneſs of the body, it is likewiſe dangerous to uſe the cold bath, without due preparation. In this caſe, there is great danger of burſting a blood-veſſel, or occaſioning an inflammation of the brain, or ſome of the viſcera. This precaution is the more neceſſary to citizens, as moſt of them live full, and are of a groſs habit. Yet, what is very remarkable, theſe people reſort in crowds every ſeaſon to the ſeaſide, and plunge in the water without the leaſt conſideration. No doubt they often eſcape with impunity; but does this give a ſanction to the practiſe? Perſons of this deſcription ought by no means to bathe, unleſs the body has been previouſly prepared by ſuitable evacuations.

Another claſs of patients, who ſtand peculiarly in need of the bracing qualities of cold water, is the nervous. This includes a great number of the male, and almoſt all the female inhabitants of great cities. Yet even thoſe perſons ought to be cautious in uſing the cold bath. Nervous people have often weak bowels, and may, as well as others, be ſubject to conjeſtions and obſtructions of the viſcera; and in this caſe, they will not be able to bear the effects of the cold water. For them, and for all delicate people, the beſt plan would be to accuſtom themſelves to it by the moſt pleaſing and gentle degrees. They ought to begin with the temperate bath, and gradually uſe it cooler, till at length the coldeſt proves quite agreeable. Nature revolts againſt all great tranſitions; and thoſe who do violence to her dictates, have often cauſe to repent of their temerity.

Where cold bathing is practiſed, there ought likewiſe to be tepid baths for the purpoſe mentioned above. Indeed, it is the practice of ſome countries to throw cold water over the patient as ſoon as he comes out of the warm bath; but though this may not injure a Ruſſian peaſant, we dare not recommend it to the inhabitants of this country. The ancient Greeks and Romans, we are told, when covered with ſweat and duſt, uſed to plunge into rivers, without receiving the ſmalleſt injury. They might often eſcape danger from this imprudent conduct, yet it was certainly contrary to ſound reaſon. Many robuſt men throw away their lives by ſuch an attempt. We would not adviſe patients to go into the cold water when the body is chilly; as much exerciſe, at leaſt,

* The late celebrated Dr. Smollet has ſaid that, if he were perſuaded he had an ulcer in the lungs, he would jump into the cold bath: he evidently ſhows more courage than diſcretion; and, that he was more a man of wit than a phyſician, every one will allow. A nervous aſthma, or an atrophy, may be miſtaken for a pulmonary conſumption; yet, in the two former, the cold bath proves often beneficial, though I never knew it ſo in the latter. Indeed, all phthiſical patients I ever ſaw, who had tried the cold bath, were evidently hurt by it.

ought to be taken, as may excite a gentle glow all over the body, but by no means ſo as to overheat it.

To young people, and particularly to children, cold bathing is of the laſt importance. Their lax fibres render its tonic powers peculiarly proper. It promotes their growth, increaſes their ſtrength*, and prevents a variety of diſeaſes incident to childhood. Were infants early accuſtomed to the cold bath, it would ſeldom diſagree with them; and we ſhould ſee fewer inſtances of ſcrophula, rickets, and other diſeaſes, which kill many, and make others miſerable for life. Sometimes theſe diſorders render infants incapable of bearing the ſhock of cold water; but this is owing to their not having been early and regularly accuſtomed to it. It is neceſſary here to caution young men againſt too frequent bathing; many fatal conſequences reſult from the daily practice of plunging into rivers, and continuing there too long.

The moſt proper time of the day for uſing the cold bath is, no doubt, the morning, or at leaſt before dinner; and the beſt mode that of quick immerſion. As cold bathing has a conſtant tendency to propel the blood and other humours towards the head, it ought to be a rule always to wet that part as ſoon as poſſible. By due attention to this circumſtance, violent head-achs, and other complaints, which frequently proceed from cold bathing, might be often prevented.

The cold bath, when too long continued in, occaſions too great a flow of blood towards the head, cramps the muſcles, and wholly defeats the intention of bathing. Hence, by not adverting to this circumſtance, expert ſwimmers are often injured, and ſometimes even loſe their lives. All the beneficial purpoſes of cold bathing are anſwered by one immerſion at a time; and the patient ought to be rubbed dry the moment he comes out of the water, and ſhould continue to take exerciſe for ſome time after.

When cold bathing occaſions chilneſs, loſs of appetite, liſtleſſneſs, pain of the breaſt or bowels, a proſtration of ſtrength, or violent head-achs, it ought to be diſcontinued.

Though theſe hints are by no means intended to point out all the caſes where cold bathing may be hurtful, nor to illuſtrate its extenſive utility as a medicine; yet it is hoped they may ſerve to guard people againſt ſome of thoſe errors into which from mere inattention they are apt to fall, and thereby not only endanger their own lives, but bring an excellent medicine into diſrepute.

* Galen ſays, that immerſion in cold water is fit only for the young of lions and bears; and recommends warm bathing, as conducive to the growth and ſtrength of infants. How egregiouſly do the greateſt men err whenever they loſe ſight of facts, and ſubſtitute reaſoning in phyſic in place of obſervation and experience!

## *Of Drinking the Mineral Waters.*

THE internal uſe of water, as a medicine, is no leſs an object of the phyſician's attention than the external. Pure elementary water is, indeed, the moſt inoffenſive of all liquors, and conſtitutes a principal part of the food of every animal. But this element is often impregnated with ſubſtances of a very active and penetrating nature; and of ſuch an inſidious quality, that, while they promote certain ſecretions, and even alleviate ſome diſagreeable ſymptoms, they weaken the powers of life, undermine the conſtitution, and lay the foundation of worſe diſeaſes than thoſe which they were employed to remove. Of this, every practitioner muſt have ſeen inſtances; and phyſicians of eminence have more than once declared, that they have known more diſeaſes occaſioned than removed by the uſe of mineral waters. This doubtleſs, has proceeded from the abuſe of theſe powerful medicines, which evinces the neceſſity of uſing them with caution.

By examining the contents of the mineral waters which are moſt uſed in this country, we ſhall be enabled to form an idea of the danger which may ariſe from an improper application of them, either externally or internally, though it is to the latter of theſe that the preſent obſervations are chiefly confined.

The waters moſt in uſe for medical purpoſes in Britain, are thoſe impregnated with ſalts, ſulphur, iron, and mephitic air, either ſeparately, or variouſly combined. Of theſe the moſt powerful is the ſaline ſulphureous water of Harrowgate, of which I have had more occaſion to obſerve the pernicious conſequences, when improperly uſed, than of any other. To this, therefore, the following remarks will more immediately relate, though they will be found applicable to all the purging waters in the kingdom which are ſtrong enough to merit attention.

The errors which ſo often defeat the intention of drinking the purgative mineral waters, and which ſo frequently prove injurious to the patient, proceed from the manner of uſing them, the quantity taken, the regimen purſued, or uſing them in caſes where they are not proper.

A very hurtful prejudice ſtill prevails in this country, that all diſeaſes muſt be cured by medicines taken into the ſtomach, and that the more violently theſe medicines operate, they are the more likely to have the deſired effect. This opinion has proved fatal to thouſands, and will, in all probability, deſtroy many more before it can be wholly eradicated. Purging is often uſeful in acute diſeaſes, and, in chronical caſes, may pave the way for the operation of other medicines; but it will ſeldom perform a cure; and by exhauſting the ſtrength of the patient, will often leave him in a worſe condition than it found him. That this is frequently the caſe with re-

gard to the more active mineral waters, every perſon converſant in theſe matters will readily allow.

Strong ſtimulants applied to the ſtomach and bowels for a length of time, muſt tend to weaken and deſtroy their energy; and what ſtimulants are more active than ſalt and ſulphur, eſpecially when theſe ſubſtances are intimately combined, and carried through the ſyſtem by the penetrating medium of water? Thoſe bowels muſt be ſtrong indeed, which can withſtand the daily operation of ſuch active principles for months together, and not be injured. This is the plan purſued by moſt of thoſe who drink the purging mineral waters, and whoſe circumſtances will permit them to continue long enough at thoſe faſhionable places of reſort.

Many people imagine that every thing depends on the quantity of water taken, and that the more they drink they will the ſooner get well. This is an egregious error; for while the unhappy patient thinks he is by this means eradicating his diſorder, he is often in fact undermining the powers of life, and ruining his conſtitution. Indeed, nothing can do this ſo effectually as weakening the powers of digeſtion by the improper application of ſtrong ſtimulants. The very eſſence of health depends on the digeſtive organs performing their due functions, and the moſt tedious maladies are all connected with indigeſtion.

Drinking the water in too great quantity, not only injures the bowels and occaſions indigeſtion, but generally defeats the intention for which it is taken. The diſeaſes for the cure of which mineral waters are chiefly celebrated, are moſtly of the chronic kind; and it is well known that ſuch diſeaſes can only be cured by the ſlow operation of alteratives, or ſuch medicines as act by inducing a gradual change in the habit. This requires length of time, and never can be effected by medicines which run off by ſtool, and operate chiefly on the firſt paſſages.

Thoſe who wiſh for the cure of an obſtinate malady from the mineral waters, ought to take them in ſuch a manner as hardly to produce any effect whatever on the bowels. With this view a half-pint glaſs may be drank at bed-time*, and the ſame quantity an hour before breakfaſt, dinner, and ſupper. The doſe, however, muſt vary according to circumſtances. Even the quantity mentioned above will purge ſome perſons, while others will drink twice as much without being in the leaſt moved by it. Its operation on the bowels is the only ſtandard for uſing the water as an alterative. No

* When I ſpeak of drinking a glaſs of the water over night, I muſt beg leave to caution thoſe who follow this plan againſt eating heavy ſuppers. The late Dr. Daultry of York, who was the firſt that brought the Harrowgate waters into repute, uſed to adviſe his patients to drink a glaſs before they went to bed; the conſequence of which was, that having eat a fleſh ſupper, and the water operating in the night, they were often tormented with gripes, and obliged to call for medical aſſiſtance.

more ought to be taken than barely to move the body; nor is it always neceſſary to carry it this length, provided the water goes off by the other emunctories, and does not occaſion a chilneſs, or flatulency in the ſtomach or bowels. When the water is intended to purge, the quantity mentioned above may be all taken before breakfaſt.

I would not only caution patients who drink the purging mineral waters over night to avoid heavy ſuppers, but alſo from eating heavy meals at any time. The ſtimulus of water, impregnated with ſalts, ſeems to create a falſe appetite. I have ſeen a delicate perſon, after drinking the Harrowgate waters of a morning, eat a breakfaſt ſufficient to have ſerved two ploughmen, devour a plentiful dinner of fleſh and fiſh, and, to crown all, eat ſuch a ſupper as might have ſatisfied a hungry porter. All this, indeed, the ſtomach ſeemed to crave; but this craving had better remain not quite ſatisfied, than that the ſtomach ſhould be loaded with what exceeds its powers. To ſtarve patients was never my plan; but in the uſe of all the purging mineral waters, a light, and rather diluting diet is the moſt proper; and no perſon, during ſuch a courſe, ought to eat to the full extent to what his appetite craves.

To promote the operation of mineral waters, and to carry them through the ſyſtem, exerciſe is indiſpenſably neceſſary. This may be taken in any manner that is moſt agreeable to the patient; but never to exceſs. The beſt kinds of exerciſe are thoſe connected with amuſement. Every thing that tends to exhilarate the ſpirits, not only promotes the operation of the waters, but acts as a medicine. All who reſort to the mineral waters, ought, therefore, to leave every care behind, to mix with the company, and to make themſelves as cheerful and happy as poſſible. From this conduct, aſſiſted by the free and wholeſome air of thoſe faſhionable places of reſort, and alſo the regular and early hours which are uſually kept, the patient often receives more benefit than from uſing the waters.

But the greateſt errors in drinking the purging mineral waters ariſe from their being uſed in caſes where they are abſolutely improper, and adverſe to the nature of the diſeaſe. When people hear of a wonderful cure having been performed by ſome mineral water, they immediately conclude that it will cure every thing, and accordingly ſwallow it down, when they might as well take poiſon. Patients ought to be well informed, before they begin to drink the more active kinds of mineral waters, of the propriety of the courſe, and ſhould never perſiſt in uſing them when they are found to aggravate the diſorder.

In all caſes where purging is indicated, the ſaline mineral waters will be found to fulfil this intention better than any other medicine. Their operation, if taken in proper quantity, is generally mild; and they are neither found to irritate the nerves, nor debilitate the patient ſo much as other purgatives.

As a purgative, theſe waters are chiefly recommended in diſeaſes

of the firſt paſſages, accompanied with, or proceeding from, inactivity of the ſtomach and bowels, acidity, indigeſtion, vitiated bile, worms, putrid ſordes, the piles, and jaundice. In moſt caſes of this kind they are the beſt medicines that can be adminiſtered. But when uſed with this view, it is ſufficient to take them twice, or at moſt, three times a-week, ſo as to move the body three or four times; and it will be proper to continue this courſe for ſome weeks.

But the operation of the more active mineral waters is not confined to the bowels. They often promote the diſcharge of urine, and not unfrequently increaſe the perſpiration. This ſhews that they are capable of penetrating into every part of the body, and of ſtimulating the whole ſyſtem. Hence ariſes their efficacy in removing the moſt obſtinate of all diſorders, obſtructions of the glandular and lymphatic ſyſtem. Under this claſs is comprehended the ſcrophula or king's evil, indolent tumours, obſtructions of the liver, ſpleen, kidnies, and meſenteric glands. When theſe great purpoſes are to be effected, the waters muſt be uſed in the gradual manner mentioned above, and perſiſted in for a length of time. It will be proper, now and then, to diſcontinue their uſe for a few days.

The next great claſs of diſeaſes, where mineral waters are found to be beneficial, are thoſe of the ſkin, as the itch, ſcab, tetters, ringworms, ſcaly eruptions, leproſies, blotches, foul ulcers, &c. Though theſe may ſeem ſuperficial, yet they are often the moſt obſtinate which the phyſician has to encounter, and not unfrequently ſet his ſkill at defiance: but they will ſometimes yield to the application of mineral waters for a ſufficient length of time, and in moſt caſes of this kind, theſe waters deſerve a trial. The ſaline ſulphureous waters, ſuch as thoſe of Moffat in Scotland, and Harrowgate in England, are the moſt likely to ſucceed in diſeaſes of the ſkin; but for this purpoſe, it will be neceſſary not only to drink the waters, but likewiſe to uſe them externally.

To enumerate more particularly the qualities of the different mineral waters, to ſpecify thoſe diſeaſes in which they are reſpectively indicated, and to point out their proper modes of application, would be an uſeful, and by no means a diſagreeable employment; but as the limits preſcribed to theſe remarks will not allow me to treat the ſubject at more length, I ſhall conclude, by obſerving, that whenever the mineral waters are found to exhauſt the ſtrength, depreſs the ſpirits, take away the appetite, excite fevers, diſtend the bowels, or occaſion a cough, they ought to be diſcontinued.

# APPENDIX:

CONTAINING

A Liſt of Simples, and of ſuch Medicinal Preparations, as ought to be kept in Readineſs for private Practice:

The Method of preparing and compounding ſuch Medicines, as are recommended in the former Part of the Book, with the Addition of ſeveral others of a ſimilar Nature:

Remarks on the Doſes, Uſes, and Manner of applying the different Preparations.

# INTRODUCTION.

IGNORANCE *and Superstition have attributed extraordinary medical virtues to almost every production of nature. That such virtues were often imaginary, time and experience have sufficiently shewn. Physicians, however, from a veneration for antiquity, still retain in their lists of medicine, many things which owe their reputation entirely to the superstition and credulity of our ancestors.*

*The instruments of medicine will always be multiplied in proportion to men's ignorance of the nature and cause of diseases: when these are sufficiently understood, the method of cure will be simple and obvious.*

*Ignorance of the real nature and permanent properties of those substances employed in the cure of diseases, is another reason why they have been so greatly multiplied. Physicians thought they could effect, by a number of ingredients, what could not be done by any one of them. Hence arose those amazing farragos, which have so long disgraced the medical art, and which were esteemed powerful in proportion to the number of simples that entered their composition.*

*The great variety of forms into which almost every article of medicine has been manufactured, affords another proof of the imperfection of the medical art. A drug which is perhaps most efficacious in the simplest form in which it can be administered, has been nevertheless served up in so many different shapes, that one would be induced to think the whole art of physic lay in exhibiting medicine under as many different modes as possible.*

*Different forms of medicine, no doubt have their use; but they ought never to be wantonly increased. They are by no means so necessary as is generally imagined. A few grains of powdered rhubarb, jalap, or ipecacuanha, will actually perform all that can be done by the different preparations of these roots, and may also be exhibited in as safe and agreeable a manner. The same observation holds with regard to the Peruvian bark, and many other simples of which the preparations are very numerous.*

*Multiplying the ingredients of a medicine, not only renders it more expensive, but also less certain, both in its dose and operation. Nor is this all. The compound, when kept, is apt to spoil, or acquire qualities of a different nature. When a medicine is rendered more safe, efficacious, or*

*agreeable, by the addition of another, they ought, no doubt, to be joined; in all other cases, they are better kept asunder. The combination of medicines embarrasses the physician, and retards the progress of medical knowledge. It is impossible to ascertain the precise effect of any one medicine, as long as it is combined with others, either of a similar or dissimilar nature.*

*In the exhibition of medicine, regard should not only be had to simplicity, but likewise to elegance. Patients seldom reap much benefit from things that are highly disagreeable to their senses. To taste or smell like a drug is become a proverb; and to say truth, there is too much ground for it. Indeed, no art can take away the disagreeable taste and flavour of some drugs, without entirely destroying their efficacy: it is possible, however, to render many medicines less disgustful, and others even agreeable; an object highly deserving the attention of all who administer medicine.*

*The design of the following pages is to exhibit such a list of drugs and medicines as may be necessary for private practice. They are considerably more numerous than those recommended in the former part of the book, but still greatly within the number contained in the most reformed dispensatories. The same medicine is seldom exhibited under different forms; and where different medicines answer nearly the same intention, there is commonly no more than one of them retained. Multiplying forms of medicine for the same intention, tends rather to bewilder than assist the young practitioner, and the experienced physician can never be at a loss to vary his prescriptions as occasion requires.*

*The chemical and other difficult preparations are for the most part omitted. All of them that are used by any private practitioner are not worth preparing. He will buy them much cheaper than he can make them. Great care however is necessary to obtain them genuine. They are often adulterated, and ought never to be purchased unless from persons of known veracity. Such of them as are in common use are inserted in the list of drugs and medicines. Their proper doses, and manner of application, are mentioned in the practical part of the book, wherever they are prescribed.*

*Such articles of medicine as are to be found in the house or garden of almost every peasant, as barley, eggs, onions, &c. are likewise for the most part omitted. It is needless to swell a list of medicines with such things as can be obtained whenever they are wanted, and which spoil by being kept.*

*The preparations made and sold by distillers and confectioners are also generally left out. These people, by operating upon a larger plan, generally make things better, while it is in their power to afford them much cheaper, than they can be prepared by any private hand.*

*The quantity ordered of every medicine is as small as could well be prepared, both to prevent unnecessary expense, and that the medicine might*

*not spoil by keeping. Almost every medicine suffers by being kept, and should be used as soon after it has been prepared as possible. Even simple drugs are apt to spoil, and should therefore be laid up in small quantities; they either rot, are consumed by insects, or evaporate so as to lose their peculiar taste or flavour, and often become quite insignificant.*

*In the preparation of medicines, I have generally followed the most improved dispensatories; but have taken the liberty to differ from them wherever my own observations, or those of other practical writers, on whose judgment I could depend, suggested an improvement.*

*In several compositions, the ingredient on which the efficacy of the medicine principally depends is increased, while the auxiliaries, which are generally ordered in such trifling quantities as to be of no importance, are left out, or only such of them retained as are necessary to give the medicine a proper consistence, or the like.*

*The colouring ingredients are likewise for the most part omitted. They increase the bulk and price of the medicine; without adding any thing to its value. It would be well if they were never used at all. Medicines are often adulterated for the sake of a colour. Acrid and even poisonous substances are, for this purpose, sometimes introduced into those medicines which ought to be most bland and emollient. Ointment of elder, for example, is often mixed with verdegrise to give it a fine green colour, which entirely frustrates the intention of that mild ointment. Those who wish to obtain genuine medicines should pay no regard to their colour.*

*Some regard is likewise paid to expense. Such ingredients as greatly increase the price of any composition, without adding considerably to its virtue, are generally either omitted, or somewhat less expensive substituted in their place. Medicines are by no means powerful in proportion to their price. The cheapest are often the best; besides, they are the least apt to be adulterated, and are always most readily obtained.*

*With regard to the method of compounding medicines, I have generally followed that which seemed to be the most simple and natural, mentioning the different steps of the process in the same order in which they ought to be taken, without paying an implicit regard to the method of other dispensatories.*

*For many of the remarks concerning the preparation, &c. of medicines, I have been obliged to the author of the New Dispensatory. The other observations are either such as have occurred to myself in practice, or have been suggested in the course of reading, by authors whose names I am not able distinctly to recollect.*

*I have followed the alphabetical order, both with regard to the simples and preparations. A more scientific method would have been agreeable to*

*some persons, but less useful to the generality of readers. The different classes of medicine have no great dependence upon one another; and, where they have, it is hard to say which should stand first or last; no doubt the simple preparations ought to precede the more compound. But all the advantages arising from this method of arrangement do not appear equal to that single one, of being able, on the first opening of the book, to find out any article, which, by the alphabetical order, is rendered quite easy.*

*The dose of every medicine is mentioned whenever it appeared necessary. When this is omitted, it is to be understood that the medicine may be used at discretion. The dose mentioned is always for an adult, unless when the contrary is expressed. It is not an easy matter to proportion the doses of medicine exactly to the different ages, constitutions, &c. of patients; but happily for mankind, mathematical exactness here is by no means necessary.*

*Several attempts have been made to ascertain the proportional doses for the different ages and constitutions of patients; but, after all that can be said upon this subject, a great deal must be left to the judgment and skill of the person who administers the medicine. The following general proportions may be observed; but they are by no means intended for exact rules. A patient between twenty and fourteen may take two-thirds of the dose ordered for an adult; from fourteen to nine, one-half; from nine to six, one-third; from six to four, one-fourth; from four to two, one-sixth; from two to one, a tenth; and below one, a twelfth.*

*Dispensatories are usually written in the Latin language. Even authors who write in English, generally give their prescriptions in Latin; and some of them shew so great an attachment to that language, as first to write their recipes in it, and afterwards translate them; while others, to compromise the matter, write the one half in Latin and the other in English. I have used the plainest English I could, and hope my prescriptions will succeed no worse for it.*

N. B. *The apothecary's weights, and the English wine measures, are used throughout the whole book, the different denominations of which will appear from the following table:*

*A pound contains twelve ounces.*
*An ounce - - eight drachms.*
*A drachm - - three scruples.*
*A scruple - - twenty grains.*

*A gallon contains eight pints.*
*A pint - - sixteen ounces.*
*An ounce - - eight drachms.*

*A table-spoonful is the measure of half an ounce.*
*A tea-spoonful is one fourth of a table-spoonful.*
*Sixty drops make one tea-spoonful.*

A LIST of SIMPLES, and of such MEDICINAL PREPARATIONS, as ought to be kept in Readiness for private Practice.

AGARIC
*Alum*
*Antimony, crude*
——*cinnabar of*
——*sulphur of*
*Balsam of Capivi*
——*of Peru*
——*of Tolu*
*Bark, cascarilla*
——*cinnamon*
——*Mezerion*
——*Peruvian*
——*Winter's, or canella alba*
*Borax*
*Calamine stone, levigated*
*Castor, Russian*
*Caustic, common*
——*lunar*
*Earth, Fuller's*
——*Japan*
——*Armenian bole*
——*French ditto*
*Extracts of gentian*
——*of guaiacum*
——*of hellebore, black*
——*of hemlock*
——*of jalap*
——*of liquorice*
——*of Peruvian bark*
——*of poppies*
——*of wormwood*
*Flowers of camomile*
——*colt's foot*
——*elder*
——*rosemary*
——*damask roses*
——*red ditto*
*Fruits, almonds*
——*bitter apple*
——*cassia fistularis*
——*Curassao oranges*
——*figs, dried*
——*French prunes*
——*Jamaica pepper*
——*juniper berries*
——*nutmegs*
——*tamarinds*
*Gum, aloes*
——*ammoniac, in tears*
——*arabic*
——*a asfœtida*
——*camphor*
——*galbanum*
——*gamboge*
——*guaiacum*
——*kino*
——*myrrh*
——*opium*
*Hartshorn, calcined*
——*shavings of*
*Herbs, lesser centaury*
——*peppermint*
——*spearmint*
——*penny-royal*
——*savin*
——*trefoil*
——*uva ursi*
——*wormwood*
*Lead, Litharge*
——*white*
——*sugar of*
*Lemon-peel*
*Mace*
*Magnesia alba*
*Manna*
*Mercury, crude*
——*calcined*
——*Æthiop's mineral*
——*calomel*
——*corrosive sal limate*
——*red precipitate*
——*white ditto*
*Musk*
*Oil, essential, of amber*
——*of anise*
——*of cinnamon*

*Oil, essential, of juniper*
*——————of lemon-peel*
*——————of peppermint*
*—expressed, of almonds*
*——————of linseed*
*Oil of olives, or Florence oil*
*——————of palms*
*—of turpentine*
*Orange-peel*
*Oyster-shells prepared*
*Poppy-heads*
*Resins, benzoin*
*——————flowers of*
*——Burgundy pitch*
*——dragon's blood*
*——frankincense*
*——liquid storax*
*——white, or rosin*
*——scammony*
*Roots, birthworth*
*——calamus aromaticus*
*——contrayerva*
*——garlic*
*——gentian*
*——ginger*
*——hellebore, black, white*
*——jalap*
*——ipecacuanha*
*——lily, white*
*——liquorice*
*——marsh-mallow*
*——mezerion*
*——rhubarb*
*——sarsaparilla*
*——seneka*
*——squills*
*——tormentil*
*——turmeric*
*——Virginian snake*
*——wild valerian*
*——zedoary*
*Saffron*
*Sal ammoniac, crude*
*——————volatile*
*Salt, Epsom*
*——of Glauber*
*——of hartshorn*
*——nitre, purified, or prunel*
*——Polychrest*
*—Rochel*
*——of tartar*
*Seeds, anise*
*——carraway*
*——cardamom*
*——coriander*
*——cummin*
*——mustard*
*——sweet fennel*
*——wild carrot*
*Senna*
*Spanish flies*
*Spermaceti*
*Spirits, æthereal, or ather*
*——of hartshorn*
*——of lavender, compound*
*——of nitre*
*——ditto dulcified*
*——of sal ammoniac*
*——of sea salt*
*——of vinegar*
*——of vitriol*
*——of wine, rectified*
*——volatile aromatic*
*Steel, filings of*
*——rust of, prepared*
*——soluble salt of*
*Sulphur vivum*
*——————balsam of*
*Sulphur, flowers of*
*Tar*
*——Barbadoes*
*Tartar, cream of*
*——emetic*
*——soluble*
*——vitriolated*
*Tin prepared*
*Tutty, levigated*
*Turpentine, Venice*
*Verdegrease*
*Vitriol, green*
*——————blue*
*——————white*
*Wax, white*
*——yellow*
*Woods, guaiacum*
*——logwood*
*——sassafras*
*——saunders, red*
*——Zinc, flowers of*

# MEDICINAL PREPARATIONS.

## BALSAMS.

THE ſubject of this ſection is not the natural balſams, but certain compoſitions, which, from their being ſuppoſed to poſſeſs balſamic qualities, generally go by that name.

This claſs of medicine was formerly very numerous, and held in great eſteem: modern practice has reduced it to a very narrow compaſs.

### *Anodyne Balſam.*

Take of white Spaniſh ſoap, one ounce; opium, unprepared, two drachms; rectified ſpirit of wine, nine ounces. Digeſt them together in a gentle heat for three days; then ſtrain off the liquor, and add to it three drachms of camphor.

This balſam is intended to eaſe pain. It is of ſervice in violent ſtrains and rheumatic complaints, when not attended with inflammation. It muſt be rubbed with a warm hand on the part affected; or a linen rag moiſtened with it may be applied to the part, and renewed every third or fourth hour, till the pain abates. If the opium is left out, this will be the *ſiponacious balſam.*

### *Locatelli's Balſam.*

Take of olive oil, one pint; Straſburg turpentine and yellow wax, of each half a pound; red ſaunders, ſix drachms. Melt the wax with ſome part of the oil over a gentle fire; then adding the remaining part of the oil and the turpentine; afterwards mix in the ſaunders, previouſly reduced to a powder, and keep them ſtirring together till the balſam is cold.

This balſam is recommended in eroſions of the inteſtines, the dyſentery, hæmorrhages, internal bruiſes, and in ſome complaints of the breaſt. Outwardly it is uſed for healing and cleanſing wounds and ulcers. The doſe, when taken internally, is from two ſcruples to two drachms.

### *The vulnerary Balſam.*

Take of benzoin, powdered, three ounces; balſam of Peru, two ounces: hepatic aloes, in powder, half an ounce: rectified ſpirit of wine, two pints. Digeſt them in a gentle heat for three days, and then ſtrain the balſam.

This balſam, or rather tincture, is applied externally to heal recent wounds and bruiſes. It is likewiſe employed internally to remove coughs, aſthmas, and other complaints of the breaſt. It is ſaid to eaſe the colic, cleanſe the kidnies, and to heal internal ulcers, &c.

The doſe is from twenty to ſixty drops.

This, though a medicine of ſome value, does not deſerve the extravagant encomiums which have been beſtowed on it. It has been celebrated under the different names of *The Commanders Balſam, Perſian Balſam, Balſam of Berne, Wade's Balſam, Friar's Balſam, Jeſuit's Drops, Turlington's Drops,* &c.

## BOLUSES.

AS boluſes are intended for immediate uſe, volatile ſalts and other ingredients improper for being kept are admitted into their compoſition. They are generally compoſed of powders, with a proper quantity of ſyrup, conſerve, or mucilage. The lighter powders are commonly made up with ſyrup, and the more ponderous, as mercury, &c. with conſerve; but thoſe of the lighter kind would be more conveniently made up with mucilage, as it increaſes their bulk leſs than the other additions, and likewiſe occaſions the medicine to paſs down more eaſily.

### *Aſtringent Bolus.*

Take of alum, in powder, fifteen grains; gum kino, five grains; ſyrup, a ſufficient quantity to make a bolus.

In an exceſſive flow of the *menſes*, and other violent diſcharges of blood, proceeding from relaxation, this bolus may be given every four or five hours, till the diſcharge abates.

### *Diaphoretic Bolus.*

Take of gum guaiacum, in powder, ten grains; flowers of ſulphur and cream of tartar, of each one ſcruple; ſimple ſyrup, a ſufficient quantity.

In rheumatic complaints, and diſorders of the ſkin, this bolus may be taken twice or thrice a week. It may be taken twice a-day. It will alſo be of ſervice in the inflammatory quinſey.

### *Mercurial Bolus.*

Take of calomel, ſix grains; conſerve of roſes, half a drachm. Make a bolus.

Where mercury is neceſſary, this bolus may be taken twice or thrice a week. It may be taken over night; and if it does not operate, a few grains of jalap will be proper next day to carry it off.

### *Bolus of Rhubarb and Mercury.*

Take of the beſt rhubarb in powder, from a ſcruple to half a drachm; of calomel, from four to ſix grains; ſimple ſyrup, a ſufficient quantity to make a bolus.

This is a proper purge in hypochondriac conſtitutions; but its principal intention is to expel worms. Where a ſtrong purge is neceſſary, jalap may be uſed inſtead of the rhubarb.

### *Pectoral Bolus.*

Take of ſpermaceti, a ſcruple; gum ammoniac, ten grains; ſalt of hartſhorn, ſix grains; ſimple ſyrup, as much as will make them into a bolus.

This bolus is given in colds and coughs of long ſtanding, aſthmas, and beginning conſumptions of the lungs. It is generally proper to bleed the patient before he begins to uſe it.

### *Purging Bolus.*

Take of jalap in powder, a ſcruple; cream of tartar, two ſcruples. Let them be rubbed together, and formed into a bolus, with ſimple ſyrup.

Where a mild purge is wanted, this will anſwer the purpoſe very well. If a ſtronger doſe is neceſſary, the jalap may be increaſed to half a drachm or upwards.

## CATAPLASMS AND SINAPISMS.

CATAPLASMS poſſeſs few or no virtues ſuperior to a poultice, which may be ſo made, as, in moſt caſes, to ſupply their place. They are chiefly intended either to act as diſcutients, or to promote ſuppuration; and as they may be of ſervice in ſome caſes, we ſhall give a ſpecimen of each kind.

### *Diſcutient Cataplaſm.*

Take of barley-meal, ſix ounces; freſh hemlock leaves bruiſed, two ounces; vinegar, a ſufficient quantity. Boil the meal and hemlock in the vinegar for a little, and then add two drachms of the ſugar of lead.

### *Ripening Cataplaſm.*

Take of white lily root, four ounces; fat figs and raw onions, bruiſed, of each one ounce; yellow baſilicum ointment, two ounces; gum galbanum, half an ounce; linſeed meal, as much as neceſſary. Boil the roots along with the figs in a ſufficient quantity of water; then bruiſe and add to them the other ingredients ſo as to form the whole into a ſoft cataplaſm. The galbanum muſt be previouſly diſſolved with the yolk of an egg.

Where it is neceſſary to promote ſuppuration, this cataplaſm may be uſed by thoſe who chooſe to be at the trouble and expenſe of making it. I have found no application more proper for this purpoſe than a poultice of bread and milk, with a ſufficient quantity of either boiled or raw onion in it, and ſoftened with oil or freſh butter.

### *Sinapiſms.*

Sinapiſms are employed to recal the blood and ſpirits to a weak part, as in the palſy and atrophy. They are alſo of ſervice in deep ſeated pains, as the ſciatica, &c. when the gout ſeizes the head or the ſtomach, they are applied to the feet to bring the diſorder to theſe parts. They are likewiſe applied to the patient's toes in the low ſtate of fevers. They ſhould not be ſuffered to lie on, however till they have raiſed bliſters, but till the parts become red, and will continue ſo when preſſed with the finger.

The ſinapiſm is only a poultice made with vinegar inſtead of milk, and rendered warm and ſtimulating by the addition of muſtard, horſe radiſh, or garlic.

The common ſinapiſm is made by taking crumb of bread and muſtard-ſeed in powder, of each equal quantities; ſtrong vinegar, as much as is ſufficient, and mixing them ſo as to make a poultice.

When ſinapiſms of a more ſtimulating nature are wanted, a little bruiſed garlic may be added to the above.

## CLYSTERS.

THIS claſs of medicines is of more importance than is generally imagined. Clyſters ſerve, not only to evacuate the contents of the belly, but alſo to convey very active medicines into the ſyſtem. Opium, for example, may be adminiſtered in this way when it will not ſit upon the ſtomach, and alſo in larger doſes than at any time it can be taken by the mouth. The Peruvian bark may likewiſe be, with good effect, adminiſtered in form of clyſter to perſons who cannot take it by the mouth.

A ſimple clyſter can ſeldom do hurt, and there are many caſes where it may do much good. A clyſter even of warm water, by ſerving as a fomentation to the parts, may be of conſiderable ſervice in inflammations of the bladder, and the lower inteſtines, &c.

Some ſubſtances, as the ſmoke of tobacco, may be thrown into the bowels in this way, which cannot by any other means whatever. This may be eaſily effected by means of a pair of hand-bellows, with an apparatus fitted to them for that purpoſe.

Nor is the uſe of clyſters confined to medicines. Aliment may alſo be conveyed in this way. Perſons unable to ſwallow, have been, for a conſiderable time, ſupported by clyſters.

### *Emollient Clyſter.*

Take of linſeed tea and new milk, each ſix ounces. Mix them.

If fifty, or ſixty drops of laudanum be added to this, it will ſupply the place of the *Anodyne Clyſter*.

### *Laxative Clyſter.*

Take of milk and water, each ſix ounces; ſweet oil and freſh butter, and brown ſugar, of each two ounces. Mix them.

If an ounce of Glauber's ſalt, or two table-ſpoonfuls of common ſalt be added to this, it will be the *Purging Clyſter*.

### *Carminative Clyſter.*

Take of camomile flowers, an ounce; anile-ſeeds, half an ounce. Boil in a pint and a half of water to one pint.

In hyſteric and hypochondriac complaints this may be adminiſtered inſtead of the *Fatid Clyſter*, the ſmell of which is ſo diſagreeable to moſt patients.

### *Oily Clyſter.*

To four ounces of the infuſion of camomile flowers, add an equal quantity of Florence oil.

This clyſter is beneficial in bringing off the ſmall worms lodged in the lower parts of the alimentary canal. When given to children the quantity muſt be proportionably leſſened.

### *Starch Clyſter.*

Take jelly of ſtarch, four ounces; linſeed oil, half an ounce. Liquify the jelly over a gentle fire, and then mix in the oil.

In the dyſentery or bloody flux, this clyſter may be adminiſtered after every looſe ſtool, to heal the ulcerated inteſtines and blunt the ſharpneſs of corroding humours. Forty or fifty drops of laudanum may be occaſionally added; in which caſe, it will generally ſupply the place of the *Aſtringent Clyſter.*

### *Turpentine Clyſter.*

Take of common decoction, ten ounces; Venice turpentine, diſſolved with the yolk of an egg, half an ounce; Florence oil, one ounce. Mix them.

This diuretic clyſter is proper in obſtructions of the urinary paſſages, and in cholicky complaints, proceeding from gravel.

### *Vinegar Clyſter.*

This clyſter is made by mixing three ounces of vinegar with five of water-gruel. It anſwers all the purpoſes of a common clyſter, with the peculiar advantage of being proper either in inflammatory or putrid diſorders, eſpecially the latter.

*** We think it unneceſſary to give more examples of this claſs of medicines, as ingredients adapted to any particular intention may be occaſionally added to one or other of the above forms.

## COLLYRIA or EYE-WATERS.

EYE-WATERS have been multiplied without number, almoſt every perſon pretending to be poſſeſſed of ſome ſecret preparation for the cure of ſore eyes. I have examined many of them, and find that they are pretty much alike, the baſis of moſt of them being either alum, vitriol, or lead. Their effects evidently are, to brace and reſtore the tone of the parts; hence they are principally of ſervice in ſlight inflammations, and in that relaxed ſtate of the parts which is induced by obſtinate ones.

Camphor is commonly added to theſe compoſitions; but as it ſeldom incorporates properly with the water, it can be of little uſe. Boles, and other earthy ſubſtances, as they do not diſſolve in water, are likewiſe unfit for this purpoſe.

### *Collyrium of Alum.*

Take of alum, half a drachm; agitate it well together with the white of one egg.

This is the Collyrium of Riverius. It is uſed in inflammation of the eyes, to allay heat, and reſtrain the flux of humours. It muſt be ſpread upon linen, and applied to the eyes; but ſhould not be kept on above three or four hours at a time.

### *Vitriolic Collyrium.*

Take of white vitriol, half a drachm; roſe-water, ſix ounces. Diſſolve the vitriol in the water, and filter the liquor.

This, though ſimple, is perhaps equal in virtue to moſt of the celebrated collyria. It is an uſeful application in weak, watery, and inflamed eyes. Though the ſlighter inflammations will generally yield to it, yet in thoſe of a more obſtinate nature, the aſſiſtance of bleeding and blittering will often be neceſſary.

When a ſtrong aſtringent is judged proper, a double or triple quantity of the vitriol may be uſed. I have ſeen a ſolution of four times the ſtrength of the above uſed with manifeſt advantage.

### *Collyrium of Lead.*

Take ſugar of lead, and cruſe ſal ammoniac, of each four grains. Diſſolve them in eight ounces of common water.

Forty or fifty drops of laudanum may be occaſionally added to this collyrium.

Thoſe who chuſe may ſubſtitute inſtead of this the collyrium of lead recommended by Goulard; which is made by putting twenty-five drops of his *Extract of Lead* to eight ounces of water, and adding a tea-ſpoonful of brandy.

Indeed, common water and brandy, without any other addition, will in many caſes anſwer very well as a collyrium. An ounce of the latter may be added to five or ſix ounces of the former; and the eyes, if weak, bathed with it night and morning.

## CONFECTIONS.

CONFECTIONS containing above ſixty ingredients are ſtill to be found in ſome of the moſt reformed diſpenſatories. As moſt of their intentions, however, may be more certainly, and as effectually anſwered by a few glaſſes of wine or grains of opium, we ſhall paſs over this claſs of medicines very ſlightly.

### *Japonic Confection.*

Take of Japan earth, three ounces; tormentil root, nutmeg, olibanum, of each two ounces; opium diſſolved in a ſufficient quantity of Liſbon wine, a drachm and a half; ſimple ſyrup and conſerve of roſes, of each fourteen ounces. Mix and make them into an electuary.

This ſupplies the place of the Diaſcordium.

The doſe of this electuary is from a ſcruple to a drachm.

## CONSERVES AND PRESERVES

POSSESS very few medicinal properties, and may rather be claſſed among ſweatmeats than medicines.—They are ſometimes, however, of uſe, for reducing into boluſes or pills ſome of the more ponderous powders, as the preparations of iron, mercury, and tin.

Conſerves are compoſitions of freſh vegetables and ſugar, beaten together into an uniform maſs. In making theſe preparations, the leaves of vegetables muſt be freed from their ſtalks, the flowers from their cups, and the yellow part of orange-peel taken off with a raſp. They are then to be pounded in a marble mortar, with a wooden peſtle, into a ſmooth maſs; after which, thrice their weight of fine ſugar is commonly added by degrees, and the beating continued till they are uniformly mixed; but the conſerve will be better if only twice its weight of ſugar be added.

Thoſe who prepare large quantities of conſerve generally reduce the vegetables to a pulp by the means of a mill, and afterwards beat them up with ſugar.

### *Conſerve of Red Roſes.*

Take a pound of red roſe buds, cleared of their heels; beat them well in a mortar, and, adding by degrees two pounds of double-refined ſugar, in powder, make a conſerve.

After the ſame manner are prepared the conſerves of orange-peel, roſemary-flowers, ſea-wormwood, of the leaves of wood-ſorrel, *&c.*

The conſerve of roſes is one of the moſt agreeable and uſeful preparations belonging to this claſs. A drachm or two of it, diſſolved in warm milk, is ordered to be given as a gentle reſtringent in weakneſs of the ſtomach, and likewiſe in phthiſical coughs, and ſpitting of blood. To have any conſiderable effects, however, it muſt be taken in larger quantities.

### *Conſerve of Sloes.*

This may be made by boiling the ſloes gently in water, being careful to take them out before they burſt; afterwards expreſſing the juice, and beating it up with three times its weight of fine ſugar.

In relaxations of the *uvula* and glands of the throat, this makes an excellent gargle, and may be uſed at diſcretion.

*Preſerves* are made by ſteeping or boiling freſh vegetables firſt in water, and afterwards in ſyrup, or a ſolution of ſugar. The ſubject is either preſerved moiſt in the ſyrup, or taken out and dried, that the ſugar may candy upon it. The laſt is the moſt uſual method.

### *Candid Orange Peel.*

Soak Seville orange-peel in ſeveral waters, till it loſes its bitterneſs; then boil it in a ſolution of double-refined ſugar in water, till it becomes tender and tranſparent.

Candid lemon-peel is prepared in the ſame manner.

It is needleſs to add more of theſe preparations, as they belong rather to the art of the confectioner than that of the apothecary.

## DECOCTIONS.

WATER readily extracts the gummy and ſaline parts of vegetables; and though its action is chiefly confined to theſe, yet the reſinous and oily being intimately blended with the gummy and ſaline, are in great part taken up along with them. Hence watery decoctions and infuſions of vegetables, conſtitute a large, and not unuſeful, claſs of medicines. Although moſt vegetables yield their virtues to water, as well by infuſion as decoction, yet the latter is often neceſſary, as it ſaves time, and does in a few minutes what the other would require hours, and ſometimes days, to effect.

The medicines of this claſs are all intended for immediate uſe.

### *Decoction of Althæa.*

Take of the roots of marſh-mallows, moderately dried, three ounces; raiſins of the ſun, one ounce; water three pints.

Boil the ingredients in the water till one third of it is conſumed; afterwards ſtrain the decoction and let it ſtand for ſome time to ſettle. If the roots be thoroughly dried, they muſt be boiled till one half of the water be conſumed.

In coughs, and ſharp defluctions upon the lungs, this decoction may be uſed for ordinary drink.

### *The Common Decoction.*

Take of camomile flowers, one ounce; elder flowers, and ſweet fennel ſeeds, of each half an ounce; water, two quarts. Boil them for a little, and then ſtrain the decoction.

A medicine equally good may be prepared by infuſing the ingredients for ſome hours in boiling water.

This decoction is chiefly intended as the baſis of clyſters, to which other ingredients may be occaſionally added. It will likewiſe ſerve as a common fomentation, ſpirit of wine or other things being added in ſuch quantity as the caſe may require.

### *Decoction of Logwood.*

Boil three ounces of the ſhavings, or chips of logwood, in four pints of water, till one half the liquor is waſted. Two or three ounces of ſimple cinnamon-water may be added to this decoction.

In fluxes of the belly, where the ſtronger aſtringents are improper, a teacupful of this decoction may be taken with advantage three or four times a-day.

### *Decoction of the Bark.*

Boil an ounce of the Peruvian bark, groſsly powdered, in a pint and a half of water to one pint; then ſtrain the decoction. If a tea-ſpoonful of the weak ſpirit of vitriol be added to this medicine, it will render it both more agreeable and efficacious.

### *Compound Decoction of the Bark.*

Take of Peruvian bark and Virginia ſnake-root, groſsly powdered, each three drachms. Boil them in a pint of water to one half. To the ſtrained liquor add an ounce and an half of aromatic water.

Sir John Pringle recommends this as a proper medicine towards the decline of malignant fevers, when the pulſe is low, the voice weak, and the head affected with a ſtupor but with little delirium.

The doſe is four ſpoonfuls every fourth or ſixth hour.

### *Decoction of Sarſaparilla.*

Take of freſh ſarſaparilla root, ſliced and bruiſed, two ounces; ſhavings of guaiacum wood, one ounce. Boil over a ſlow fire, in three quarts of water, to one; adding towards the end, half an ounce of ſaſſafras wood, and three drachms of liquorice. Strain the decoction.

This may either be employed as an aſſiſtant to a courſe of mecurial alteratives, or taken after the mercury has been uſed for ſome time. It ſtrengthens the ſtomach, and reſtores fleſh and vigour to habits emaciated by the venereal diſeaſe. It may alſo be taken in the rheumatiſm, and cutaneous diſorders proceeding from foulneſs of the blood and juices. For all theſe intentions it is greatly preferable to the *Decoctions of Woods*.

This decoction may be taken, from a pint and a half to two quarts in the day.

The following decoction is ſaid to be ſimilar to that uſed by *Kennedy*, in the cure of the venereal diſeaſe, and may ſupply the place of the Liſbon diet drink:

Take of ſarſaparilla, three ounces; liquorice and mezerion root, of each half an ounce; crude antimony, powdered, an ounce and a half. Infuſe theſe ingredients in eight pints of boiling water for twenty-four hours, then boil them till one half of the water is conſumed; afterwards ſtrain the decoction.

This decoction may be uſed in the ſame manner as the preceding.

### *Decoction of Seneka.*

Take of ſeneka rattle-ſnake root, one ounce; water, a pint and a half. Boil to one pint, and ſtrain.

This decoction is recommended in the pleuriſy, dropſy, rheumatiſm, and ſome obſtinate diſorders of the ſkin. The doſe is two ounces, three or four times a-day, or oftner, if the ſtomach will bear it.

### *White Decoction.*

Take of the pureſt chalk, in powder, two ounces; gum arabic, half an ounce; water, three pints. Boil to one quart, and ſtrain the decoction.

This is a proper drink in acute diſeaſes, attended with, or inclining to a looſeneſs, and where acidities abound in the ſtomach, or bowels. It is peculiarly proper for children when afflicted with ſourneſs of the ſtomach, and for perſons who are ſubject to the heartburn. It may be ſweetened with ſugar, as it is uſed, and two or three ounces of ſimple cinnamon-water added to it.

An ounce of powdered chalk, mixed with two pints of water, will occaſionally ſupply the place of this decoction, and alſo of the chalk julep.

## DRAUGHTS.

THIS is a proper form for exhibiting ſuch medicines as are intended to operate immediately, and which do not need to be frequently repeated; as purges, vomits, and a few others, which are to be taken at one doſe. Where a medicine requires to be uſed for any length of time, it is better to make up a larger quantity of it at once, which ſaves both time and expenſe.

### *Anodyne Draught.*

Take of liquid laudanum, twenty-five drops; ſimple cinnamon-water, an ounce; common ſyrup, two drachms. Mix them.

In exceſſive pain, where bleeding is not neceſſary, and in great reſtleſſneſs, this compoſing draught may be taken and repeated occaſionally.

### *Diuretic Draught.*

Take of the diuretic ſalt, two ſcruples; ſyrup of poppies, two drachms; ſimple cinnamon-water, and common water, of each an ounce.

This draught is of ſervice in an obſtruction or deficiency of urine.

### *Purging Draughts.*

Take of manna, an ounce; ſoluble tartar, or Rochel ſalt, from three to four drachms. Diſſolve in three ounces of boiling water; to which add Jamaica pepper-water, half an ounce.

As manna ſometimes will not ſit upon the ſtomach, an ounce or ten drachms of the purging ſalts, diſſolved in four ounces of water, may be taken inſtead of the above.

Thoſe who cannot take ſalts may uſe the following draught:

Take of jalap in powder, a ſcruple; common water, an ounce; aromatic tincture, ſix drachms. Rub the jalap with twice its weight of ſugar, and add to it the other ingredients.

### *Sweating Draught.*

Take ſpirit of Mindererus, two ounces; ſalt of hartſhorn, five grains; ſimple cinnamon-water, and ſyrup of poppies, of each half an ounce. Make them into a draught.

In recent colds and rheumatic complaints, this draught is of ſervice. To promote its effects, however, the patient ought to drink freely of warm water-gruel, or of ſome other weak diluting liquor.

### *Vomiting Draughts.*

Take of ipecacuanha, in powder, a ſcruple; water, an ounce; ſimple ſyrup, a drachm. Mix them.

Perſons who require a ſtronger vomit, may add to the above half a grain, or a grain of emetic tartar.

Thoſe who do not chuſe the powder, may take ten drachms of the ipecacuanha wine; or half an ounce of the wine, and an equal quantity of the ſyrup of ſquills.

## ELECTUARIES.

ELECTUARIES are generally compoſed of the lighter powders, mixed with ſyrup, honey conſerve, or mucilage, into ſuch a conſiſtence that the powders may neither ſeparate by keeping, nor the maſs prove too ſtiff for ſwallowing. They receive chiefly the milder alteratives medicine, and ſuch as are not ungrateful to the palate.

Aſtringent electuaries, and ſuch as have pulps of fruit in them, ſhould be prepared only in ſmall quantities; as aſtringent medicines loſe their virtues by being kept in this form, and the pulps of fruits are apt to ferment.

For the extraction of pulps it will be neceſſary to boil unripe fruits, and ripe ones if they are dried, in a ſmall quantity of water till they become ſoft. The pulp is then to be preſſed out through a ſtrong hair ſieve, or thin cloth, and afterwards boiled to a due conſiſtence, in an earthen veſſel, over a gentle fire, taking care to prevent the matter from burning by continually ſtirring it. The pulps of fruits that are both ripe and freſh may be preſſed out without any previous boiling.

### *Lenitive Electuary.*

Take of ſenna, in fine powder, eight ounces; coriander ſeed, alſo in powder, four ounces; pulp of tamarinds and of French prunes, each a pound. Mix the pulps and powders together, and with a ſufficient quantity of ſimple ſyrup, reduce the whole into an electuary.

A tea-ſpoonful of this electuary, taken two or three times a-day, generally proves an agreeable laxative. It likewiſe ſerves as a convenient vehicle for exhibiting more active medicines as jalaps, ſcammony, and ſuch like.

This may ſupply the place of the electuary of *Caſſia*.

### *Electuary for the Dyſentery.*

Take of the Japonic confection, two ounces; Locatelli's balſam, one ounce; rhubarb, in powder, half an ounce; ſyrup of marſhmallows, enough to make an electuary.

It is often dangerous in dyſenteries to give opiates and aſtringents, without interpoſing purgatives. The purgative is here joined with theſe ingredients, which renders this a very ſafe and uſeful medicine for the purpoſes expreſſed in the title.

About the bulk of a nutmeg ſhould be taken twice or thrice a-day, as the ſymptoms and conſtitution may require.

### *Electuary for the Epilepſy.*

Take of Peruvian bark, in powder, an ounce; of powdered tin, and wild valerian root, each half an ounce; ſimple ſyrup, enough to make an electuary.

Dr. Mead directs a drachm of an electuary similar to this to be taken evening and morning, in the epilepsy, for the space of three months. It will be proper, however, to discontinue the use of it for a few days every now and then. I have added the powdered tin, because the epilepsy often proceeds from worms.

### *Electuary for the Gonorrhœa.*

Take of lenitive electuary, three ounces; jalap and rhubarb, in powder, of each two drachms; nitre, half an ounce; simple syrup, enough to make an electuary.

During the inflammation and tension of the urinary passages, which accompany a virulent gonorrhœa, this cooling laxative may be used with advantage.

The dose is a drachm, or about the bulk of a nutmeg, two or three times a-day; more or less, as may be necessary to keep the body gently open.

An electuary made of cream of tartar and simple syrup will occasionally supply the place of this.

After the inflammation is gone off, the following electuary may be used:

Take of lenitive electuary, two ounces; balsam of capivi, one ounce; gum guaiacum and rhuburb, in powder, of each two drachms; simple syrup, enough to make an electuary. The dose is the same as of the preceding.

### *Electuary of the Bark.*

Take of Peruvian bark, in powder, three ounces; cascarilla, half an ounce; syrup of ginger, enough to make an electuary.

In the cure of obstinate intermitting fevers, the bark is assisted by the cascarilla. In hectic habits, however, it will be better to leave out the cascarilla, and put three drachms of crude sal ammoniac in its stead.

### *Electuary for the Piles.*

Take flowers of sulphur, one ounce; cream of tartar, half an ounce; treacle, a sufficient quantity to form an electuary.

A tea-spoonful of this may be taken three or four times a day.

### *Electuary for the Palsy.*

Take of powdered mustard-seed, and conserve of roses, each an ounce; syrup of ginger, enough to make an electuary.

A tea-spoonful of this may be taken three or four times a-day.

### *Electuary for the Rheumatism.*

Take of conserve of roses, two ounces; cinnabar of antimony, levigated, an ounce and a half; gum guaiacum, in powder, an ounce; syrup of ginger, a sufficient quantity to make an electuary.

In obstinate rheumatisms, which are not accompanied with a fever, a tea-spoonful of this electuary may be taken twice a-day with considerable advantage.

## EMULSIONS.

EMULSIONS, beside their use as medicines, are also proper vehicles for certain substances, which could not otherwise be conveniently taken in a liquid form. Thus camphor, triturated with almonds, readily unites with water into an emulsion. Pure oils, balsams, resins, and other similar substances, are likewise rendered miscible with water by the intervention of mucilages.

### *Common Emulsion.*

Take of sweet almonds, an ounce; bitter almonds, a drachm; water two pints.

Let the almonds be blanched, and beat up in a marble mortar; adding the water by little and little, so as to make an emulsion; afterwards let it be strained.

### *Arabic Emulſion.*

This is made in the ſame manner as the above, adding to the almonds, while beating, two ounces and a half of the mucilage of gum arabic.

Where ſoft cooling liquors are neceſſary, theſe emulſions may be uſed as ordinary drink.

### *Camphorated Emulſion.*

Take of camphor, half a drachm; ſweet almonds, half a dozen; white ſugar, half an ounce; mint water, eight ounces. Grind the camphor and almonds well together in a ſtone mortar, and add by degrees the mint water; then ſtrain the liquor, and diſſolve in it the ſugar.

In fevers, and other diſorders which require the uſe of camphor, a table-ſpoonful of this emulſion may be taken every two or three hours.

### *Emulſion of Gum Ammoniac.*

Take of gum ammoniac, two drachms; water, eight ounces. Grind the gum with the water poured upon it by little and little, till it is diſſolved.

This emulſion is uſed for attenuating tough, viſcid phlegm, and promoting expectoration. In obſtinate coughs, two ounces of the ſyrup of poppies may be added to it. The doſe is two table-ſpoonfuls three or four times a-day.

### *Oily Emulſion.*

Take of ſoft water, ſix ounces; volatile aromatic ſpirit, two drachms; Florence oil, an ounce; ſhake them well together, and add, of ſimple ſyrup, half an ounce.

In recent colds and coughs, this emulſion is generally of ſervice; but if the cough proves obſtinate, it will ſucceed better when made with the paregoric elixir of the Edinburgh Diſpenſatory, inſtead of the volatile aromatic ſpirit. A table-ſpoonful of it may be taken every two or three hours.

## EXTRACTS.

EXTRACTS are prepared by boiling the ſubject in water, and evaporating the ſtrained decoction to a due conſiſtence. By this proceſs ſome of the more active parts of plants are freed from the uſeleſs, indiſſoluble earthy matter, which makes the larger ſhare of their bulk. Water, however, is not the only menſtruum uſed in the preparation of extracts; ſometimes it is joined with ſpirits, and at other times rectified ſpirit alone is employed for that purpoſe.

Extracts are prepared from a variety of different drugs, as the bark, gentian, jalaps, &c.; but as they require a troubleſome and tedious operation, it will be more convenient for the private practitioner to purchaſe what he needs of them from a profeſſed druggiſt, than to prepare them himſelf. Such of them as are generally uſed are inſerted in our liſt of ſuch drugs and medicines as are to be kept for private practice.

## FOMENTATIONS.

FOMENTATIONS are generally intended either to eaſe pain, by taking off tenſion and ſpaſm, or to brace and reſtore the tone and vigour of thoſe parts to which they are applied. The firſt of theſe intentions may generally be anſwered by warm water, and the ſecond by cold. Certain ſubſtances, however, are uſually added to water, with a view to heighten its effects, as anodynes, aromatics, aſtringents, &c. We ſhall therefore ſubjoin a few of the moſt uſeful medicated fomentations, that people may have it in their power to make uſe of them if they chooſe.

### *Anodyne Fomentation.*

Take of white poppy-heads, two ounces; elder flowers, half an ounce; water, three pints. Boil till one pint is evaporated, and ſtrain out the liquor.

This fomentation, as its title expreſſes, is uſed for relieving acute pain.

### *Aromatic Fomentation.*

Take of Jamaica pepper, half an ounce; red wine, a pint. Boil them for a little, and then ſtrain the liquor.

This is intended, not only as a topical application for external complaints, but alſo for relieving the internal parts. Pains of the bowels, which accompany dyſenteries and diarrhœas, flatulent colics, uneaſineſs of the ſtomach, and reachings to vomit, are frequently abated by fomenting the abdomen and region of the ſtomach with the warm liquor.

### *Common Fomentation.*

Take tops of wormwood and camomile flowers, dried, of each two ounces; water, two quarts. After a ſlight boiling, pour off the liquor.

Brandy or ſpirit of wine may be added to this fomentation, in ſuch quantity as the particular circumſtances of the caſe ſhall require; but theſe are not always neceſſary.

### *Emollient Fomentation.*

This is the ſame as the common decoction.

### *Strengthening Fomentation.*

Take of oak bark, one ounce; granate peel, half an ounce; alum, two drachms; ſmith's forge water, three pints. Boil the water with the bark and peel to the conſumption of one-third; then ſtrain the decoction, and diſſolve it in alum.

This aſtringent liquor is employed as an external fomentation to weak parts; it may alſo be uſed internally.

## GARGLES.

HOWEVER trifling this claſs of medicines may appear, they are by no means without their uſe. They ſeldom indeed cure diſeaſes, but they often alleviate very diſagreeable ſymptoms; as parchedneſs of the mouth, foulneſs of the tongue and fauces, &c. they are peculiarly uſeful in fevers and ſore throats. In the latter, a gargle will ſometimes remove the ſordes; and in the former, few things are more refreſhing or agreeable to the patient, than to have his mouth frequently waſhed with ſome ſoft detergent gargle.

One advantage of theſe medicines is, that they are eaſily prepared. A little barley-water and honey may be had any where; and if to theſe be added as much vinegar as will give them an agreeable ſharpneſs, they will make a very uſeful gargle for ſoftning and cleanſing the mouth.

Gargles have the beſt effect when injected with a ſyring.

### *Attenuating Gargle.*

Take of water, ſix ounces; honey one ounce; nitre, a drachm and a half. Mix them.

This cooling gargle may be uſed either in the inflammatory quinſey, or in fevers, for cleanſing the tongue and fauces.

### *Common Gargle.*

Take of roſe-water, ſix ounces; ſyrup of clove July-flowers, half an ounce; ſpirit of vitriol, a ſufficient quantity to give it an agreeable ſharpneſs. Mix them.

This gargle, beſides cleanſing the tongue and fauces, acts as a gentle repellant, and will ſometimes remove a ſlight quinſey.

### *Detergent Gargle.*

Take of the emollient gargle, a pint; tincture of myrrh, an ounce; honey, two ounces. Mix them.

When exulcerations require to be cleanſed, or the excretion of tough viſcid ſaliva promoted, this gargle will be of ſervice.

### *Emollient Gargle.*

Take an ounce of marſhmallow roots, and two or three figs; boil them in a quart of water till near one half of it be conſumed; then ſtrain out the liquor.

If an ounce of honey, and an half an ounce of ſpirit of ſal-ammoniac, be added to the above it will then be an exceeding good *attenuating gargle.*

This gargle is beneficial in fevers, where the tongue and fauces are rough and parched, to ſoften theſe parts, and promote the diſcharge of ſaliva.

The learned and accurate Sir John Pringle obſerves, that in the inflammatory quinſey, or ſtrangulation of the fauces, little benefit ariſes from the common gargles that ſuch as are of an acid nature do more harm than good, by contracting the emunctories of the ſaliva and mucus, and thickening thoſe humours; that a decoction of figs in milk and water has a contrary effect, eſpecially if ſome ſal ammoniac be added; by which the ſaliva is made thinner, and the glands brought to ſecrete more freely; a circumſtance always conducive to the cure.

## INFUSIONS.

VEGETABLES yield nearly the ſame properties to water by infuſion as by decoction; and though they may require a longer time to give out their virtues in this way, yet it has ſeveral advantages over the other; ſince boiling is found to diſſipate the finer parts of many bitter and aromatic ſubſtances, without more fully extracting their medicinal principles.

The author of the New Diſpenſatory obſerves, that even from thoſe vegetables which are weak in virtue, rich infuſions may be obtained, by returning the liquor upon freſh quantities of the ſubject, the water loading itſelf more and more with the active parts; and that theſe loaded infuſions are applicable to valuable purpoſes in medicine, as they contain in a ſmall compaſs, the finer, more ſubtile, and active principles of vegetables, in a form readily miſcible with the fluids of the human body.

### *Bitter Infuſion.*

Take tops of the leſſer centaury and camomile flowers, of each half an ounce; yellow rind of lemon and orange peel, carefully freed from the inner white part, of each two drachms. Cut them in ſmall pieces, and infuſe them in a quart of boiling water.

For indigeſtion, weakneſs of the ſtomach, or want of appetite, a tea-cupful of this infuſion may be taken twice or thrice a day.

### *Infuſion of the Bark.*

To an ounce of the bark, in powder, add four or five table-ſpoonfuls of brandy, and a pint of boiling water. Let them infuſe for two or three days.

This is one of the beſt preparations of the bark for weak ſtomachs. In diſorders where the corroborating virtues of that medicine are required, a tea-cupful of it may be taken two or three times a-day.

### *Infuſion of Carduus.*

Infuſe an ounce of the dried leaves of carduus benedictus, or bleſſed thiſtle, in a pint of common water, for ſix hours, without heat; then filter the liquor through paper.

This light infuſion may be given, with great benefit, in weakneſs of the ſtomach where the common bitters do not agree. It may be flavoured at pleaſure with cinnamon, or other aromatic materials.

### *Infuſion of Linſeed.*

Take of linſeed, two ſpoonfuls; liquorice root, ſliced, half an ounce; boiling water, three pints. Let them ſtand to infuſe by the fire for ſome hours, and then ſtrain off the liquor.

If an ounce of the leaves of colt's-foot be added to theſe ingredients, it will then be the *pectoral infuſion*. Both theſe are emollient mucilaginous liquors, and may be taken with advantage as ordinary drink in difficulty of making water; and in coughs and other complaints of the breaſt.

### *Infusion of roses.*

Take of red roses, dried, half an ounce; boiling water, a quart; vitriolic acid, commonly called oil of vitriol, half a drachm; loaf sugar, an ounce.

Infuse the roses in the water four hours, in an unglazed earthen vessel; afterwards pour in the acid, and having strained the liquor, add to it the sugar.

In an excessive flow of the *menses*, vomiting of blood, and other hæmorrhages, a tea-cupful of this gently astringent infusion may be taken every three or four hours. It likewise makes an exceeding good gargle.

As the quantity of roses used here can have little or no effect, an equally valuable medicine may be prepared by mixing the acid and water without infusion.

### *Infusion of Tamarinds and Senna.*

Take of tamarinds, one ounce; senna, and crystals of tartar, each two drachms. Let these ingredients be infused four or five hours in a pint of boiling water; afterwards let the liquor be strained, and an ounce or two of the aromatic tincture added to it. Persons who are easily purged may leave out either the tamarinds or the crystals of tartar.

This is an agreeable cooling purge. A tea-cupful may be given every half hour till it operates.

This supplies the place of the *decoction of tamarinds and senna.*

### *Spanish Infusion.*

Take of Spanish juice, cut into small pieces, an ounce; salt of tartar, three drachms. Infuse in a quart of boiling water for a night. To the strained liquor add an ounce and an half of the syrup of poppies.

In recent colds, coughs, and obstructions of the breast, a tea-cupful of this infusion may be taken with advantage three or four times a-day.

### *Infusion for the Palsey.*

Take of horse-radish root shaved, mustard seed bruised, each four ounces; outer rind of orange peel, one ounce. Infuse them in two quarts of boiling water, in a close vessel, for twenty-four hours.

In paralytic complaints, a tea-cupful of this warm stimulating medicine may be taken three or four times a-day. It excites the action of the solids, proves diuretic, and, if the patient be kept warm, promotes perspiration.

If two or three ounces of the dried leaves of marsh-trefoil be used instead of the mustard, it will make the *antiscorbutic infusion.*

## JULEPS.

THE basis of juleps is generally common water, or some simple distilled water, with one-third or one-fourth its quantity of distilled spirituous water, and as much sugar or syrup as is sufficient to render the mixture agreeable. This is sharpened with vegetable or mineral acids, or impregnated with other medicines suitable to the intention.

### *Camphorated Julep.*

Take of camphor, one drachm; gum arabic, half an ounce; double refined sugar, an ounce; vinegar a pint. Grind the camphor with a few drops of rectified spirit of wine till it grows soft; then add the gum, previously reduced to a mucilage with equal its quantity of water, and rub them together till they are perfectly united. To this mixture add, by little and little, the vinegar with the sugar dissolved in it, still continuing the trituration.

In hysterical and other complaints where camphor is proper, this julep may be taken in the dose of a spoonful or two as often as the stomach will bear it.

### *Cordial Julep.*

Take of simple cinnamon-water, four ounces; Jamaica pepper-water, two ounces; volatile aromatic spirit, and compound spirit of lavender, of each two drachms; syrup of orange-peel, an ounce. Mix them.

This is given in the dose of two spoonfuls three or four times a-day, in disorders accompanied with great weakness and depression of spirits.

### *Expectorating Julep.*

Take of the emulſion of gum ammoniac, ſix ounces; ſyrup of ſquills, two ounces. Mix them.

In coughs, aſthmas, and obſtructions of the breaſt, two table ſpoonfuls of this julep may be taken every three or four hours.

### *Muſk Julep.*

Rub half a drachm of muſk well together with half an ounce of ſugar, and add to it, gradually, of ſimple cinnamon and pepper-mint water, each two ounces; of the volatile aromatic ſpirit, two drachms.

In the low ſtate of nervous fevers, hiccupping, convulſions, and other ſpaſmodic affections, two table-ſpoonfuls of this julep may be taken every two or three hours.

### *Saline Julep.*

Diſſolve two drachms of ſalt of tartar in three ounces of freſh lemon-juice, ſtrained when the effervescence is over, add, of mint-water, and common water, each two ounces; of ſimple ſyrup, one ounce.

This removes ſickneſs at the ſtomach, relieves vomiting, promotes perſpiration, and may be of ſome ſervice in fevers, eſpecially of the inflammatory kind.

### *Vomitting Julep.*

Diſſolve four grains of emetic tartar in eight ounces of water, and add to it half an ounce of the ſyrup of clove July-flowers.

In the beginning of fevers, where there is no topical inflammation, this julep may be given in the doſe of one table-ſpoonful every quarter of an hour till it operates. Antimonial vomits ſerve not only to evacuate the contents of the ſtomach, but likewiſe to promote the different excretions. Hence they are found in fevers to have nearly the ſame effects as Dr. *James's Powder*.

## MIXTURES.

A MIXTURE differs from a julep in this reſpect, that it receives into its compoſition not only ſalts, extracts, and other ſubſtances diſſoluble in water, but alſo earths, powders, and ſuch ſubſtances as cannot be diſſolved. A mixture is ſeldom an agreeable medicine. It is nevertheleſs neceſſary. Many perſons can take a mixture, who are not able to ſwallow a bolus or an electuary: beſides, there are medicines which act better in this than in any other form.

### *Aſtringent Mixture.*

Take ſimple cinnamon-water and common water, of each three ounces; ſpirituous cinnamon-water, one ounce and a half; Japonic confection, half an ounce. Mix them.

In dyſenteries which are not of long ſtanding, after the neceſſary evacuations, a ſpoonful or two of this mixture may be taken every four hours, interpoſing every ſecond or third day a doſe of rhubarb.

### *Diuretic Mixture.*

Take of mint-water, five ounces; vinegar of ſquills, ſix drachms; ſweet ſpirit of nitre, half an ounce; ſyrup of ginger, an ounce and a half. Mix them.

In obſtructions of the urinary paſſages, two ſpoonfuls of this mixture may be taken twice or thrice a-day.

### *Laxative Abſorbent Mixture.*

Rub one drachm of magneſia alba in a mortar with ten or twelve grains of the beſt Turkey rhubarb, and add to them three ounces of common water; ſimple cinnamon-water, and ſyrup of ſugar, of each one ounce.

As moſt diſeaſes of infants are accompanied with acidities, this mixture may either be given with a view to correct theſe, or to open the body. A table-ſpoonful may be taken for a doſe, and repeated three times a-day. To a very young child half a ſpoonful will be ſufficient.

When the mixture is intended to purge, the dose may either be increased, or the quantity of rhubarb doubled.

This is one of the most generally useful medicines for children with which I am acquainted.

### *Saline Mixture.*

Dissolve a drachm of the salt of tartar in four ounces of boiling water; and, when cold, drop into it, spirit of vitriol, till the effervescence ceases; then add, of peppermint-water, two ounces, simple syrup, one ounce.

Where fresh lemons cannot be had, this mixture may occasionally supply the place of the saline julep.

### *Squill Mixture.*

Take of simple cinnamon-water, five ounces; vinegar of squills, one ounce; syrup of marshmallows, an ounce and a half. Mix them.

This mixture, by promoting expectoration, and the secretion of urine, proves serviceable in asthmatic and dropsical habits. A table-spoonful of it may be taken frequently.

## OINTMENTS, LINIMENTS, AND CERATES.

NOTWITHSTANDING the extravagant encomiums which have been bestowed on different preparations of this kind, with regard to their efficacy in the cure of wounds, sores, &c. it is beyond a doubt, that the most proper application to a green wound is dry lint. But though ointments do not heal wounds and sores, yet they serve to defend them from the external air, and to retain such substances as may be necessary for drying, deterging, destroying proud flesh, and such-like. For these purposes, however, it will be sufficient to insert only a few of the most simple forms, as ingredients of a more active nature can occasionally be added to them.

### *Yellow Basilicum Ointment.*

Take of yellow wax, white resin, and frankincense, each a quarter of a pound; melt them together over a gentle fire; then add, of hogs'-lard prepared, one pound. Strain the ointment while warm.

This ointment is employed for cleansing and healing wounds and ulcers.

### *Ointment of Calamine.*

Take of olive oil, a pint and a half; white wax, and calamine stone, levigated, of each half a pound. Let the calamine stone, reduced into a fine powder, be rubbed with some part of the oil, and afterwards added to the rest of the oil and wax, previously melted together, continually stirring them till quite cold.

This ointment, which is commonly known by the name of *Turner's Cerate*, is an exceeding good application in burns and excoriations, from whatever cause.

### *Emollient Ointment.*

Take of palm oil, two pounds; olive oil, a pint and a half; yellow wax, half a pound; Venice turpentine, a quarter of a pound. Melt the wax in the oils over a gentle fire; then mix in the turpentine, and strain the ointment.

This supplies the place of *Althæa Ointment*. It may be used for anointing inflamed parts, &c.

### *Eye Ointments.*

Take, of hogs'-lard prepared, four ounces; white wax, two drachms; tutty prepared, one ounce; melt the wax with the lard, over a gentle fire, and then sprinkle in the tutty, continually stirring them till the ointment is cold.

This ointment will be more efficacious, and of a better consistence, if two or three drachms of camphor be rubbed up with a little oil, and intimately mixed with it.

### *Another.*

Take of camphor, and calamine ſtone levigated, each ſix drachms; verdegreaſe well prepared, two drachms; hogs'-lard, and mutton ſuet prepared, of each two ounces. Rub the camphor well with the powder; afterwards mix in the lard and ſuet, continuing the triture till they be perfectly united.

This ointment has been long in eſteem for diſeaſes of the eyes. It ought, however, to be uſed with caution, when the eyes are much inflamed, or very tender.

### *Iſſue Ointment.*

Mix half an ounce of Spaniſh flies, finely powdered, in ſix ounces of yellow baſilicum ointment.

This ointment is chiefly intended for dreſſing bliſters, in order to keep them open during pleaſure.

### *Ointment of Lead.*

Take of olive oil, half a pint; white wax, two ounces, ſugar of lead three drachms. Let the ſugar of lead, reduced into a fine powder, be rubbed up with ſome part of the oil, and afterwards added to the other ingredients, previouſly melted together; continually ſtirring them till quite cold.

This cooling and gently aſtringent ointment may be uſed in all caſes where the intention is to dry and ſkin over the part, as in ſcalding, &c.

### *Mercurial Ointment.*

Take of quickſilver, two ounces; hogs'-lard, three ounces; mutton ſuet, one ounce. Rub the quickſilver with an ounce of the hogs'-lard, in a warm mortar, till the globules be perfectly extinguiſhed; then rub it up with the reſt of the lard and ſuet, previouſly melted together.

The principal intention of this ointment is to convey mercury into the body by being rubbed upon the ſkin.

### *Ointment of Sulphur.*

Take of hogs'-lard prepared, four ounces; flowers of ſulphur, an ounce and a half; crude ſal ammoniac, two drachms; eſſence of lemon, ten or twelve drops. Make them into an ointment.

This ointment rubbed upon the parts affected, will generally cure the itch. It is both the ſafeſt and beſt application for that purpoſe, and, when made in this way, has no diſagreeable ſmell.

### *White Ointment.*

Take of olive oil, one pint; white wax and ſpermaceti, of each three ounces. Melt them with a gentle heat, and keep them conſtantly and briſkly ſtirring together, till quite cold.

If two drachms of camphor, previouſly rubbed with a ſmall quantity of oil, be added to the above, it will make the *White camphorated Ointment.*

### *Liniment for Burns.*

Take equal parts of Florence oil, or of freſh drawn linſeed oil, and lime-water; ſhake them well together in a wide-mouthed bottle, ſo as to form a liniment.

This is found to be an exceeding proper application for recent ſcalds or burns. It may either be ſpread upon a cloth, or the parts affected may be anointed with it twice or thrice a-day.

### *White Liniment.*

This is made in the ſame manner as the white ointment, two-thirds of the wax being left out.

This liniment may be applied in caſes of excoriation, where, on account of the largeneſs of the ſurface, the ointments with lead or calamine might be improper.

### *Liniment for the Piles.*

Take of emollient ointment, two ounces; liquid laudanum, half an ounce. Mix theſe ingredients with the yolk of an egg, and work them well together.

### *Volatile Liniment.*

Take of Florence oil, an ounce; ſpirit of harſhorn, half an ounce. Shake them together.

This liniment, made with equal parts of the ſpirit and oil, will be more efficacious, where the patient's ſkin is able to bear it.

Sir John Pringle obſerves, that in the inflammatory quinſey, a piece of flannel moiſtened with this liniment, and applied to the throat, to be renewed every four or five hours, is one of the moſt efficacious remedies; and that it ſeldom fails, after bleeding, either to leſſen or carry off the complaint. The truth of this obſervation I have often experienced.

### *Camphorated Oil.*

Rub an ounce of camphor, with two ounces of Florence oil, in a mortar, till the camphor be entirely diſſolved.

This antiſpaſmodic liniment may be uſed in obſtinate rheumatiſms, and in ſome other caſes accompanied with extreme pain and tenſion of the parts.

## PILLS.

MEDICINES which operate in a ſmall doſe, and whoſe diſagreeable taſte, or ſmell, makes it neceſſary that they ſhould be concealed from the palate, are moſt commodiouſly exhibited in this form. No medicine, however, that is intended to operate quickly, ought to be made into pills, as they often lie for a conſiderable time on the ſtomach before they are diſſolved, ſo as to produce any effect.

As the ingredients which enter the compoſition of pills are generally ſo contrived that one pill of an ordinary ſize may contain about five grains of the compound, in mentioning the doſe, we ſhall only ſpecify the number of pills to be taken; as one, two, three, &c.

### *Compoſing Pill.*

Take of puriſied opium, ten grains; Caſtile ſoap, half a drachm. Beat them together, and form the whole into twenty pills.

When a quieting draught will not ſit upon the ſtomach, one, two, or three of theſe pills may be taken as occaſion requires.

### *Fætid Pill.*

Take of aſafœtida, half an ounce; ſimple ſyrup, as much as is neceſſary to form it into pills.

In hyſteric complaints, four or five pills, of an ordinary ſize, may be taken twice or thrice a-day. They may likewiſe be of ſervice to perſons afflicted with the aſthma.

When it is neceſſary to keep the body open, a proper quantity of rhubarb, aloes, or jalap, may occaſionally be added to the above maſs.

### *Hemlock Pill.*

Take any quantity of the extract of hemlock, and adding to it about a fifth part of its weight of the powder of the dried leaves, form it into pills of the ordinary ſize.

The extract of hemlock may be taken from one grain to ſeveral drachms in the day. The beſt method, however, of uſing theſe pills, is to begin with one or two, and to increaſe the doſe gradually, as far as the patient can bear them, without any remarkable degree of ſtupor or giddineſs.

## *Mercurial Pill.*

Take of purified quickſilver and honey, each half an ounce. Rub them together in a mortar till the globules of mercury are perfectly extinguiſhed; then add, of Caſtile ſoap, two drachms, powdered liquorice, or crumb of bread, a ſufficient quantity to give the maſs a proper conſiſtence for pills.

When ſtronger mercurial pills are wanted, the quantity of quickſilver may be doubled.

The doſe of theſe pills is different, according to the intention with which they are given. As an alterant, two or three may be taken daily. To raiſe a ſalivation four or five will be neceſſary.

Equal parts of the above pill and powdered rhubarb made into a maſs, with a ſufficient quantity of ſimple ſyrup, will make a Mercurial purging Pill.

## *Mercurial ſublimate Pill.*

Diſſolve fifteen grains of the corroſive ſublimate of mercury in two drachms of the ſaturated ſolution of crude ſal ammoniac, and make it into a paſte, in a glaſs mortar, with a ſufficient quantity of the crumb of bread. This maſs muſt be formed into one hundred and twenty pills.

This pill, which is the moſt agreeable form of exhibiting the ſublimate, has been found efficacious, not only in curing the venereal diſeaſe, but alſo in killing and expelling worms, after other powerful medicines have failed.

For the venereal diſeaſe, four of theſe pills may be taken twice a-day, as an alterant three, and for worms two.

## *Plummer's Pill.*

Take of calomel, or ſweet mercury, and precipitated ſulphur of antimony, each three drachms; extract of liquorice, two drachms. Rub the ſulphur and mercury well together; afterwards add the extract, and, with a ſufficient quantity of the mucilage of gum arabic, make them into pills.

This pill has been found a powerful, yet ſafe, alterative in obſtinate cutaneous diſorders; and has completed a cure after a ſalivation had failed. In venereal caſes it has likewiſe produced excellent effects. Two or three pills of an ordinary ſize may be taken night and morning, the patient keeping moderately warm, and drinking after each doſe a draught of decoction of the woods, or of ſarſaparilla.

## *Purging Pills.*

Take of ſuccotorine aloes, and Caſtile ſoap, each two drachms; of ſimple ſyrup, a ſufficient quantity to make them into pills.

Four or five of theſe pills will generally prove a ſufficient purge. For keeping the body gently open, one may be taken night and morning. They are reckoned both deobſtruent and ſtomachic, and will be found to anſwer all the purpoſes of Dr. Anderſon's pills, the principal ingredient of which is aloes.

Where aloetic purges are improper, the following pills may be uſed:

Take extract of jalap, and vitriolated tartar, of each two drachms; ſyrup of ginger, as much as will make them of a proper conſiſtence for pills.

Theſe pills may be taken in the ſame quantity as the above.

## *Pill for the Jaundice.*

Take of Caſtile ſoap, ſuccotorine aloes, and rhubarb, of each one drachm. Make them into pills with a ſufficient quantity of ſyrup or mucilage.

Theſe pills, as their title expreſſes, are chiefly intended for the jaundice, which, with the aſſiſtance of proper diet, they will often cure. Five or ſix of them may be taken twice a-day, more or leſs, as is neceſſary to keep the body open. It will be proper, however, during their uſe, to interpoſe now and then a vomit of ipecacuanha or tartar emetic.

## *Stomachic Pill.*

Take extract of gentian, two drachms; powdered rhubarb and vitriolated tartar, of each one drachm; oil of mint, thirty drops; ſimple ſyrup, a ſufficient quantity.

Three or four of theſe pills may be taken twice a-day, for invigorating the ſtomach, and keeping the body gently open.

### *Squill Pills.*

Take powder of dried ſquills, a drachm and a half; gum ammoniac, and cardamom ſeeds, in powder, of each three drachms; ſimple ſyrup, a ſufficient quantity.

In dropſical and aſthmatic complaints, two or three of theſe pills may be taken twice a day, or oftner, if the ſtomach will bear them.

### *Strengthening Pill.*

Take ſoft extract of the bark, and ſalt of ſteel, each a drachm. Make into pills.

In diſorders ariſing from exceſſive debility, or relaxation of the ſolids, as the chloroſis, or green ſickneſs, two of theſe pills may be taken three times a-day.

## PLAISTERS.

PLAISTERS ought to be of a different conſiſtence, according to the purpoſes for which they are intended. Such as are to be applied to the breaſts or ſtomach ought to be ſoft and yielding; while thoſe deſigned for the limbs ſhould be firm and adheſive.

It has been ſuppoſed, that plaiſters might be impregnated with the virtues of different vegetables, by boiling the recent vegetable with the oil employed for the compoſition of the plaiſter; but this treatment does not communicate to the oils any valuable qualities.

The calces of lead boiled with oils unite with them into a plaiſter of a proper conſiſtence, which makes the baſis of ſeveral other plaiſters. In boiling theſe compoſitions, a quantity of hot water muſt be added from time to time to prevent the plaiſter from burning or growing black. This, however, ſhould be done with care, leſt it cauſe the matter to explode.

### *Common Plaiſter.*

Take of common olive oil, ſix pints; litharge reduced to a fine powder, two pounds and a half. Boil the litharge and oil together over a gentle fire, continually ſtirring them, and keeping always about half a gallon of water in the veſſel; after they have boiled about three hours, a little of the plaiſter may be taken out and put into cold water, to try if it be of a proper conſiſtence: when that is the caſe, the whole may be ſuffered to cool, and the water well preſſed out of it with the hands.

This plaiſter is generally applied in ſlight wounds and excoriations of the ſkin. It keeps the part ſoft and warm, and defends it from the air, which is all that is neceſſary in ſuch caſes. Its principal uſe, however, is to ſerve as a baſis for other plaiſters.

### *Adheſive Plaiſter.*

Take of common plaiſter, half a pound; of Burgundy pitch, a quarter of a pound. Melt them together.

This plaiſter is principally uſed for keeping on other dreſſings.

### *Anodyne Plaiſter.*

Melt an ounce of adheſive plaiſter, and, when it is cooling, mix with it a drachm of powdered opium, and the ſame quantity of camphor, previouſly rubbed up with a little oil.

This plaiſter generally gives eaſe in acute pains, eſpecially of the nervous kind.

### *Bliſtering Plaiſter.*

Take of Venice turpentine, ſix ounces; yellow wax, two ounces; Spaniſh flies in fine powder, three ounces; powdered muſtard, one ounce. Melt the wax, and

while it is warm, add to it the turpentine, taking care not to evaporate it by too much heat. After the turpentine and wax are sufficiently incorporated, sprinkle in the powders, continually stirring the mass till it be cold.

Though this plaister is made in a variety of ways, one seldom meets with it of a proper consistence. When compounded with oils and other greasy substances, its effects are blunted, and it is apt to run; while pitch and resin render it too hard and very inconvenient.

When the blistering plaister is not at hand, its place may be supplied, by mixing, with any soft ointment, a sufficient quantity of powdered flies; or, by forming them into a paste, with flour and vinegar.

### *Gum Plaister.*

Take of the common plaister, four pounds; gum ammoniac and galbanum, strained, of each half a pound. Melt them together, and add, of Venice turpentine, six ounces.

This plaister is used as a digestive, and likewise for discussing indolent tumours.

### *Mercurial Plaister.*

Take of common plaister, one pound; of gum ammoniac, strained, half a pound, melt them together, and, when cooling, add eight ounces of quick-silver, previously extinguished by triture, with three ounces of hog's lard.

This plaister is recommended in pains of the limbs arising from a venereal cause. Indurations of the glands, and other violent tumours, are likewise found sometimes to yield to it.

### *Stomach Plaister.*

Take of gum plaister, half a pound; camphorated oil, an ounce and a half; black pepper, or capsicum, where it can be had, one ounce. Melt the plaister, and mix with it the oil; then sprinkle in the pepper, previously reduced to a fine powder.

An ounce or two of this plaister, spread upon soft leather, and applied to the region of the stomach, will be of service, in flatulencies arising from hysteric and hypochondriac affections. A little of the expressed oil of mace, or a few drops of the essential oil of mint, may be rubbed upon it before it is applied.

This may supply the place of the Antihysteric Plaister.

### *Warm Plaister.*

Take of gum plaister, one ounce; blistering plaister, two drachms. Melt them together over a gentle fire.

This plaister is useful in the sciatica, and other fixed pains of the rheumatic kind: it ought, however, to be worn for some time, and to be renewed, at least once a-week. If this is found to blister the part, which is sometimes the case, it must be made with a smaller proportion of the blistering plaister.

### *Wax Plaister.*

Take of yellow wax, one pound; white resin, half a pound; mutton suet, three quarters of a pound. Melt them together.

This is generally used instead of the Melliot Plaister. It is a proper application after blisters, and in other cases where a gentle digestive is necessary.

## POWDERS.

THIS is one of the most simple forms in which medicine can be administered. Many medicinal substances, however, cannot be reduced into powder, and others are too disagreeable to be taken in this form.

The lighter powders may be mixed in any agreeable, thin liquor, as tea or water-gruel. The more ponderous will require a more consistent vehicle, as syrup, conserve, jelly, or honey.

Gums, and other substances which are difficult to powder, should be pounded

along with the drier ones; but thoſe which are too dry, eſpecially aromatics, ought to be ſprinkled, during their pulverization, with a few drops of any proper water.

Aromatic powders are to be prepared only in ſmall quantities at a time, and kept in glaſs veſſels, cloſely ſtopped. Indeed, no powders ought to be expoſed to the air or kept too long, otherwiſe their virtues will be, in a great meaſure, deſtroyed.

## *Aſtringent Powder.*

Take of alum and Japan earth, each two drachms. Pound them together, and divide the whole into ten or twelve doſes.

In an immoderate flow of the menſes, and other hæmorrhages, one of theſe powders may be taken every hour, or every half hour, if the diſcharge be violent.

## *Powder of Bole.*

Take of bole armenic, or French bole, two ounces; cinnamon, one ounce; tormentil root and gum arabic, of each ſix drachms; long pepper, one drachm. Let all theſe ingredients be reduced into a powder.

This warm, glutinous, aſtringent powder, is given in fluxes, and other diſorders where medicines of that claſs are neceſſary, in the doſe of a ſcruple, or half a drachm.

If a drachm of opium be added, it will make the powder of bole with opium, which is a medicine of conſiderable efficacy. It may be taken in the ſame quantity as the former, but not above twice or thrice a day.

## *Carminative Powder.*

Take of coriander-ſeed, half an ounce; ginger, one drachm; nutmegs, half a drachm; fine ſugar, a drachm and a half. Reduce them into powder for twelve doſes.

This powder is employed for expelling flatulencies ariſing from indigeſtion, particularly thoſe to which hyſteric and hypochondriac perſons are ſo liable. It may likewiſe be given in ſmall quantities to children in their food, when troubled with gripes.

## *Diuretic Powder.*

Take of gum arabic, four ounces; purified nitre, one ounce. Pound them together, and divide the whole into twenty-four doſes.

During the firſt ſtage of the venereal diſeaſe, one of theſe cooling powders may be taken three times a-day, with conſiderable advantage.

## *Aromatic Opening Powder.*

Take of the beſt Turkey rhubarb, cinnamon, and fine ſugar, each two drachms. Let the ingredients be pounded, and afterwards mixed well together.

Where flatulency is accompanied with coſtiveneſs, a tea-ſpoonful of this powder may be taken once or twice a-day, according to circumſtances.

## *Saline Laxative Powders.*

Take of ſoluble tartar, and cream of tartar, each one drachm; purified nitre, half a drachm. Make them into a powder.

In fevers, and other inflammatory diſorders, where it is neceſſary to keep the body gently open, one of theſe cooling laxative powders may be taken in a little gruel, and repeated occaſionally.

## *Steel Powder.*

Take filings of ſteel, and loaf-ſugar, of each two ounces; ginger, two drachms. Pound them together.

In obſtructions of the menſes, and other caſes where ſteel is proper, a tea-

ſpoonful of this powder may be taken twice a-day, and waſhed down with a little wine or water.

### *Sudorific Powder.*

Take of purified nitre and vitriolated tartar, of each half an ounce; opium and ipecacuanha, of each one drachm. Mix the ingredients, and reduce them to a fine powder.

This is generally known by the name of Dover's Powder. It is a powerful ſudorific. In obſtinate rheumatiſms, and other caſes where it is neceſſary to excite a copious ſweat, this powder may be adminiſtered in the doſe of a ſcruple or half a drachm. Some patients will require two ſcruples. It ought to be accompanied with the plentiful uſe of ſome warm diluting liquor.

### *Worm-Powder.*

Take of tin reduced into a fine powder, an ounce; Æthiop's mineral, two drachms. Mix them well together, and divide the whole into ſix doſes.

One of theſe powders may be taken in a little ſyrup, honey, or treacle twice a-day. After they have been all uſed, the following anthelmintic purge may be proper.

### *Purging Worm-Powder.*

Take of powdered rhubarb, a ſcruple; ſcammony and calomel, of each five grains. Rub them together in a mortar for one doſe.

For children, the above doſe muſt be leſſened according to their age.

If the powder of tin be given alone, its doſe may be conſiderably increaſed. The late Dr. Alſton gave it to the amount of two ounces in three days, and ſays, when thus adminiſtered, that it proved an egregious anthelmintic. He purged his patients both before they took the powder and afterwards.

### *Powder for the Tape-Worm.*

Early in the morning the patient is to take in any liquid, two or three drachms, according to his age and conſtitution, of the root of the male fern reduced into a fine powder. About two hours afterwards he is to take of calomel and reſin of ſcammony, each ten grains; gum gamboge, ſix grains. Theſe ingredients muſt be finely powdered, and given in a little ſyrup, honey, treacle, or any thing that is moſt agreeable to the patient. He is then to walk gently about, now and then drinking a diſh of weak green tea, till the worm is paſſed. If the powder of the fern produces naufea, or ſickneſs, it may be removed by ſucking the juice of an orange or lemon.

This medicine, which had been long kept a ſecret abroad for the cure of the tape worm, was ſome time ago purchaſed by the French King, and made public for the benefit of mankind. Not having had an opportunity of trying it, I can ſay nothing from experience concerning its efficacy. It ſeems, however, from its ingredients, to be an active medicine, and ought to be taken with care. The doſe here preſcribed is ſufficient for the ſtrongeſt patient; it muſt, therefore, be reduced according to the age and conſtitution.

## SYRUPS.

SYRUPS were ſome time ago looked upon as medicines of conſiderable value. They are at preſent regarded chiefly as vehicles for medicines of greater efficacy, and are uſed for ſweetening draughts, juleps, or mixtures; and for reducing the lighter powders into boluſes, pills, and electuaries. As all theſe purpoſes may be anſwered by the ſimple ſyrup alone, there is little occaſion for any other; eſpecially as they are ſeldom found but in a ſtate of fermentation; and as the doſe of any medicine given in this form is very uncertain. Perſons who ſerve the public muſt keep whatever their cuſtomers call for; but to the private practitioner nine-tenths of the ſyrups uſually kept in the ſhops are unneceſſary.

### *Simple Syrup*

Is made by diſſolving in water, either with or without heat, about double its weight of fine ſugar

If twenty-five drops of landanum be added to an ounce of the ſimple ſyrup, it will ſupply the place of diacodium, or the ſyrup of poppies, and will be found a more ſafe and certain medicine.

The lubricating virtues of the ſyrup of marſhmallows may likewiſe be ſupplied, by adding to the common ſyrup a ſufficient quantity of mucilage of gum arabic.

Thoſe who chuſe to preſerve the juice of lemons in form of ſyrup, may diſſolve in it, by the heat of a warm bath, nearly double its weight of fine ſugar. The juice ought to be previouſly ſtrained, and ſuffered to ſtand till it ſettles.

The ſyrup of ginger is ſometimes of uſe as a warm vehicle for giving medicines to perſons afflicted with flatulency. It may be made by infuſing two ounces of bruiſed ginger in two pints of boiling water for twenty-four hours. After the liquor has been ſtrained, and has ſtood to ſettle for ſome time, it may be poured off, and a little more than double its weight of fine powdered ſugar diſſolved in it.

## TINCTURES, ELIXIRS, &c.

RECTIFIED ſpirit is the direct menſtruum of the reſins and eſſential oils of vegetables, and totally extracts theſe active principles from ſundry ſubſtances, which yield them to water, either not at all, or only in part.

It diſſolves likewiſe thoſe parts of animal ſubſtances in which their peculiar ſmells and taſtes reſide. Hence, the tinctures prepared with rectified ſpirits form an uſeful and elegant claſs of medicines, poſſeſſing many of the moſt eſſential virtues of ſimples, without being clogged with their inert or uſeleſs parts.

Water, however, being the proper menſtruum of the gummy, ſaline, and ſaccharine parts of medicinal ſubſtances, it will be neceſſary, in the preparation of ſeveral tinctures, to make uſe of a weak ſpirit, or a compoſition of rectified ſpirit and water.

### *Aromatic Tincture.*

Infuſe two ounces of Jamaica pepper in two pints of brandy, without heat, for a few days; then ſtrain off the tincture.

This ſimple tincture will ſufficiently anſwer all the intentions of the more coſtly preparations of this kind. It is rather too hot to be taken by itſelf; but is very proper for mixing with ſuch medicines as might otherwiſe prove too cold for the ſtomach.

### *Compound Tincture of the Bark.*

Take of Peruvian bark, two ounces; Seville orange-peel and cinnamon, of each half an ounce. Let the bark be powdered, and the other ingredients bruiſed; then infuſe the whole in a pint and a half of brandy, for five or ſix days, in a cloſe veſſel; afterwards ſtrain off the tincture.

This tincture is not only beneficial in intermitting fevers, but alſo in the ſlow nervous, and putrid kinds, eſpecially towards their decline.

The doſe is from one drachm to three or four, every fifth or ſixth hour. It may be given in any ſuitable liquor, and occaſionally ſharpened with a few drops of the ſpirit of vitriol.

### *Volatile Fœtid Tincture.*

Infuſe two ounces of aſſafœtida in one pint of volatile aromatic ſpirit, for eight days, in a cloſe bottle, frequently ſhaking it; then ſtrain the tincture.

This medicine is beneficial in hyſteric diſorders, eſpecially when attended with lowneſs of ſpirits, and faintings. A tea-ſpoonful of it may be taken in a glaſs of wine, or a cup of penny-royal tea.

### *Volatile Tincture of Gum Guaiacum.*

Take of gum guaiacum, four ounces; volatile aromatic ſpirit, a pint. Infuſe without heat, in a veſſel well ſtopped, for a few days; then ſtrain off the tincture.*

* *A very good tincture of guaiacum for domeſtic uſe, may be made by infuſing two or three ounces of the gum in a bottle of rum or brandy.*

In rheumatic complaints, a tea-spoonful of this tincture may be taken in a cup of the infusion of water-trefoil, twice or thrice a-day.

### *Tincture of Black Hellebore.*

Infuse two ounces of the roots of black hellebore, bruised, in a pint of proof spirit, for seven or eight days; then filter the tincture through paper. A scruple of cochineal may be infused along with the roots, to give the tincture a colour.

In obstructions of the *menses*, a tea-spoonful of this tincture may be taken in a cup of camomile or penny-royal tea twice a-day.

### *Astringent Tincture.*

Digest two ounces of gum kino, in a pint and a half of brandy, for eight days; afterwards strain it for use.

This tincture, though not generally known, is a good astringent medicine. With this view, an ounce, or more, of it may be taken three or four times a-day.

### *Tincture of Myrrh and Aloes.*

Take of gum myrrh, an ounce and a half; hepatic aloes, one ounce. Let them be reduced to a powder, and infused in two pints of rectified spirits, for six days, in a gentle heat; then strain the tincture.

This is principally used by surgeons for cleansing foul ulcers, and restraining the progress of gangrenes. It is also, by some, recommended as a proper application to green wounds.

### *Tincture of Opium, or Liquid Laudanum.*

Take of crude opium, two ounces; spirituous aromatic water, and mountain wine, of each ten ounces. Dissolve the opium, sliced, in the wine, with a gentle heat, frequently stirring it; afterwards add the spirit, and strain off the tincture.

As twenty-five drops of this tincture contain about a grain of opium, the common dose may be from twenty to thirty drops.

### *Sacred Tincture, or Tincture of Hiera Picra.*

Take of succotorine aloes in powder, one ounce; Virginian snake-root and ginger, of each two drachms. Infuse in a pint of mountain wine, and half a pint of brandy, for a week, frequently shaking the bottle, then strain off the tincture.

This is a safe and useful purge for persons of a languid and phlegmatic habit; but is thought to have better effects, taken in small doses as a laxative.

The dose, as a purge, is from one to two ounces.

### *Compound Tincture of Senna.*

Take of senna, one ounce; jalap, coriander seeds and cream of tartar, of each half an ounce. Infuse them in a pint and a half of French brandy for a week; then strain the tincture, and add to it four ounces of fine sugar.

This is an agreeable purge, and answers all the purposes of the *Elixir salutis*, and of *D. ffy's Elixir*.

The dose is from one to two or three ounces.

### *Tincture of Spanish Flies.*

Take of Spanish flies, reduced to a fine powder, two ounces; spirit of wine, one pint. Infuse for two or three days; then strain off the tincture.

This is intended as an acrid stimulant for external use. Parts affected with the palsy or chronic rheumatism may be frequently rubbed with it.

### *Tincture of the Balsam of Tolu.*

Take of the balsam of Tolu, an ounce and a half; rectified spirit of wine, a pint. Infuse, in a gentle heat, until the balsam is dissolved; then strain the tincture.

This tincture possesses all the virtues of the balsam. In coughs, and other complaints of the breast, a tea-spoonful or two of it may be taken in a bit of loaf-sugar. But the best way of using it is in syrup. An ounce of the tincture, properly mixed with two pounds of simple syrup, will make what is commonly called the *Balsamic Syrup*.

### *Tincture of Rhubarb.*

Take of rhubarb, two ounces and a half, leſſer cardamom ſeeds, half an ounce; brandy two pints. Digeſt for a week, and ſtrain the tincture.

Thoſe who chooſe to have a vinous tincture of rhubarb, may infuſe the above ingredients in a bottle of Liſbon wine, adding to it about two ounces of proof ſpirits.

If half an ounce of gentian root, and a drachm of Virginian ſnake-root be added to the above ingredients, it will make the bitter tincture of rhubarb.

All theſe tinctures are deſigned as ſtomachics and corroborants as well as purgatives. In weakneſs of the ſtomach, indigeſtion, laxity of the inteſtines, fluxes, cholicky and ſuch-like complaints, they are frequently of great ſervice. The doſe is from half a ſpoonful to three or four ſpoonfuls or more, according to the circumſtances of the patient, and the purpoſes it is intended to anſwer.

### *Paregoric Elixir.*

Take of flowers of benzoin, half an ounce; opium, two drachms. Infuſe, in one pound of the volatile aromatic ſpirit, for four or five days, frequently ſhaking the bottle; afterwards ſtrain the elixir.

This is an agreeable and ſafe way of adminiſtering opium. It eaſes pain, allays tickling coughs, relieves difficult breathing, and is uſeful in many diſorders of children, particularly the hooping cough.

The doſe to an adult is from fifty to a hundred drops.

### *Sacred Elixir.*

Take of rhubarb cut ſmall, ten drachms; ſuccotorine aloes, in powder, ſix drachms; leſſer cardamom ſeeds, half an ounce; French brandy, two pints. Infuſe for two or three days, and then ſtrain the elixir.

This uſeful ſtomachic purge may be taken from one ounce to an ounce and a half.

### *Stomachic Elixir.*

Take of gentian root, two ounces; curaſſao oranges, one ounce; Virginian ſnake-root, half an ounce. Let the ingredients be bruiſed, and infuſed for three or four days in two pints of French brandy; afterwards ſtrain out the elixir.

This is an elegant ſtomachic bitter. In flatulencies, indigeſtion, want of appetite, and ſuch-like complaints, a ſmall glaſs of it may be taken twice a-day. It, likewiſe, relieves the gout in the ſtomach, when taken in a large doſe.

### *Acid Elixir of Vitriol.*

Take of the aromatic tincture, one pint; oil of vitriol, three ounces. Mix them gradually, and after the faeces have ſubſided, filter the elixir through paper, in a glaſs funnel.

This is one of the beſt medicines which I know for hyſteric and hypochondriac patients, afflicted with flatulencies ariſing from relaxation or debility of the ſtomach and inteſtines. It will ſucceed where the moſt celebrated ſtomachic bitters have no effect. The doſe is from ten to forty drops, in a glaſs of wine or water, or a cup of any bitter infuſion, twice or thrice a-day. It ſhould be taken when the ſtomach is moſt empty.

### *Camphorated Spirit of Wine.*

Diſſolve an ounce of camphor in a pint of rectified ſpirits.

This ſolution is chiefly employed as an embrocation in bruiſes, palſies, the chronic rheumatiſm, and for preventing gangrenes.

The above quantity of camphor, diſſolved in half a pound of the volatile aromatic ſpirit, makes *Ward's Eſſence.*

### *Spirit of Mindererus.*

Take of volatile ſal ammoniac, any quantity. Pour on it gradually, diſtilled vinegar, till the effervеſcence ceaſes.

This medicine is uſeful in promoting a diſcharge both by the ſkin and urinary paſſages. It is alſo a good external application in ſtrains and bruiſes.

When intended to raiſe a ſweat, half an ounce of it in a cup of warm gruel may be given to the patient in bed every hour till it has the deſired effect.

# VINEGARS.

VINEGAR is an acid produced from vinous liquors by a ſecond fermentation. It is an uſeful medicine both in inflammatory and putrid diſorders. Its effects are, to cool the blood, quench thirſt, counteract a tendency to putrefaction, and allay inordinate motions of the ſyſtem. It, likewiſe, promotes the natural ſecretions, and, in ſome caſes, excites a copious ſweat, where the warm medicines, called alexipharmic, tend rather to prevent that ſalutary evacuation.

Weakneſs, faintings, vomitings, and other hyſteric affections, are often relieved by vinegar applied to the mouth and noſe, or received into the ſtomach. It is of excellent uſe, alſo, in correcting many poiſonous ſubſtances, when taken into the ſtomach; and in promoting their expulſion, by the different emunctories, when received into the blood.

Vinegar is not only an uſeful medicine, but ſerves, likewiſe, to extract, in tolerable perfection, the virtues of ſeveral other medicinal ſubſtances. Moſt of the odoriferous flowers impart to it their fragrance, together with a beautiful purpliſh or red colour. It alſo aſſiſts, or coincides with the intention of ſquills, garlic, gum ammoniac, and ſeveral other valuable medicines.

Theſe effects, however, are not to be expected from every thing that is ſold under the name of vinegar, but from ſuch as is ſound and well prepared.

The beſt vinegars are thoſe prepared from French wines.

It is neceſſary, for ſome purpoſes, that the vinegar be diſtilled. But as this operation requires a particular chemical apparatus, we ſhall not inſert it.

## *Vinegar of Litharge.*

Take of litharge, half a pound; ſtrong vinegar, two pints. Infuſe them together in a moderate heat for three days, frequently ſhaking the veſſel; then filter the liquor for uſe.

This medicine is little uſed, from a general notion of its being dangerous. There is reaſon however, to believe, that the preparations of lead with vinegar are poſſeſſed of ſome valuable properties, and that they may be uſed, in many caſes, with ſafety and ſucceſs.

A preparation of a ſimilar nature with the above has, of late, been extolled by Goulard, a French ſurgeon, as a ſafe and extenſively uſeful medicine, which he calls the *Extract of Saturn*, and orders to be made in the following manner:

Take of litharge, one pound; vinegar, made of French wine, two pints. Put them together into a glazed earthen pipkin, and let them boil, or rather ſimmer, for an hour, or an hour and a quarter, taking care to ſtir them all the while with a wooden ſpatula. After the whole has ſtood to ſettle, pour off the liquor which is upon the top into bottles for uſe.

With this extract, Goulard makes his *vegeto-mineral water*,* which he recommends in a great variety of external diſorders, as inflammations, burns, bruiſes, ſprains, ulcers, &c.

He, likewiſe, prepares with it a number of other forms of medicine, as poultices, plaiſters, ointments, powders, &c.

## *Vinegar of Roſes.*

Take of red roſes, half a pound; ſtrong vinegar, half a gallon. Infuſe in a cloſe veſſel, for ſeveral weeks, in a gentle heat; and then ſtrain off the liquor.

This is principally uſed as embrocation for head-achs, &c.

## *Vinegar of Squills.*

Take of dried ſquills, two ounces; diſtilled vinegar, two pints. Infuſe for ten days or a fortnight in a gentle degree of heat, afterwards ſtrain off the liquor, and add to it about a twelfth part its quantity of proof ſpirits.

This medicine has good effects in diſorders of the breaſt, occaſioned by a load of viſcid phlegm. It is alſo of uſe in hydropic caſes for promoting a diſcharge of urine.

The doſe is from two drachms to two ounces, according to the intention for which

* See *Collyrium of Lead.*

it is given. When intended to act as a vomit, the dose ought to be large. In other cases, it must not only be exhibited in small doses, but also mixed with cinnamon-water, or some other agreeable aromatic liquor, to prevent the nausea it might otherwise occasion.

## WATERS BY INFUSION, &c.

### *Lime-Water.*

POUR two gallons of water gradually upon a pound of fresh burnt quicklime; and when the ebullition ceases, stir them well together; then suffer the whole to stand at rest, that the lime may settle, and afterwards filter the liquor through paper, which is to be kept in vessels closely stopt.

The lime-water from calcined oyster-shells, is prepared in the same manner.

Lime-water is principally used for the gravel; in which case, from a pint to two or more of it may be drank daily. Externally it is used for washing foul ulcers, and removing the itch, and other diseases of the skin.

### *Compound Lime-Water.*

Take shavings of guaiacum wood, half a pound; liquorice root, one ounce; sassafras bark, half an ounce; coriander seeds, three drachms; simple lime-water, six pints.

Infuse without heat for two days, and then strain off the liquor.

In the same manner may lime-water be impregnated with the virtues of other vegetable substances. Such impregnation not only renders the water more agreeable to the palate, but also a more efficacious medicine, especially in cutaneous disorders, and foulness of the blood and juices.

It may be taken in the same quantity as the simple water.

### *Sublimate Water.*

Dissolve eight grains of the corrosive sublimate in a pint of cinnamon-water.

If a stronger solution is wanted, a double or triple quantity of sublimate may be used.

The principal intention of this is to cleanse foul ulcers, and consume proud flesh.

### *Styptic Water.*

Take of blue vitriol and alum, each an ounce and a half; water, one pint. Boil them until the salts are dissolved, then filter the liquor, and add to it a drachm of the oil of vitriol.

This water is used for stopping a bleeding at the nose, and other hæmorrhages; for which purpose cloths or dossils dipt in it must be applied to the part.

### *Tar Water.*

Pour a gallon of water on two pounds of Norway tar, and stir them strongly together with a wooden rod: after they have stood to settle for two days, pour off the water for use.

Though tar-water falls greatly short of the character which has been given of it, yet it possesses some medicinal virtues. It sensibly raises the pulse, increases the secretions, and sometimes opens the body, or occasions vomiting.

A pint of it may be drank daily, or more, if the stomach can bear it. It is generally ordered to be taken on an empty stomach, viz. four ounces morning and evening, and the same quantity about two hours after breakfast and dinner.

## SIMPLE DISTILLED WATERS.

A GREAT number of distilled waters were formerly kept in the shops, and are still retained in some Dispensatories. But we consider them chiefly in the light of grateful diluents, suitable vehicles for medicines of greater efficacy, or for render-

ing disgustful ones more agreeable to the palate and stomach. We shall, therefore, insert only a few of those which are best adapted to these intentions.

The management of a still being now generally understood, it is needless to spend time in giving directions for that purpose.

### *Cinnamon Water.*

Steep one pound of cinnamon bark, bruised, in a gallon and a half of water, and one pint of brandy, for two days; and then distil off one gallon.

This is an agreeable aromatic water, possessing, in a high degree, the fragrance and cordial virtues of the spice.

### *Pennyroyal Water.*

Take of pennyroyal leaves, dried, a pound and a half; water, from a gallon and a half to two gallons. Draw off, by distillation, one gallon.

This water possesses in a considerable degree, the smell, taste, and virtues of the plant. It is given in mixtures and juleps to hysteric patients.

An infusion of the herb in boiling water answers nearly the same purposes.

### *Peppermint Water.*

This is made in the same manner as the preceding.

### *Spearmint Water.*

This may also be prepared in the same way as the penny-royal water.

Both these are useful stomachic waters, and will sometimes relieve vomiting, especially when it proceeds from indigestion, or cold viscid phlegm. They are likewise useful in some colicky complaints, the gout in the stomach, &c. particularly the peppermint water.

An infusion of the fresh plant is frequently found to have the same effects as the distilled water.

### *Rose Water.*

Take of roses fresh gathered, six pounds; water, two gallons. Distil off one gallon.

This water is principally valued on account of its fine flavour.

### *Jamaica Pepper Water.*

Take of Jamaica pepper, half a pound; water, a gallon and a half. Distil off one gallon.

This is a very elegant distilled water, and may, in most cases, supply the place of the more costly spice waters.

## SPIRITUOUS DISTILLED WATERS.

### *Spirituous Cinnamon Water.*

TAKE of cinnamon bark, one pound; proof spirit, and common water, of each one gallon. Steep the cinnamon in the liquor for two days; then distil off one gallon.

### **Spirituous Jamaica Pepper Water.*

Take of Jamaica pepper, half a pound; proof spirit, three gallons; water, two gallons. Distil off three gallons.

This is a sufficiently agreeable cordial, and may supply the place of the *Aromatic Water*.

# WHEYS.

## *Alum Whey.*

BOIL two drachms of powdered alum in a pint of milk till it is curdled; then ſtrain out the whey.

This whey is beneficial in an immoderate flow of the *menſes*, and in a *diabetes*, or exceſſive diſcharge of urine.

The doſe is two, three, or four ounces, according as the ſtomach will bear it, three times a-day. If it ſhould occaſion vomiting, it may be diluted.

## *Muſtard Whey.*

Take milk and water, of each a pint; bruiſed muſtard-ſeed, an ounce and a half. Boil them together till the curd is perfectly ſeparated; afterwards ſtrain the whey through a cloth.

This is the moſt elegant, and by no means the leaſt efficacious method of exhibiting muſtard. It warms and invigorates the habit, and promotesthe different ſecretions. Hence, in the low ſtate of nervous fevers, it will often ſupply the place of wine It is alſo of uſe in the chronic rheumatiſm, palſy, dropſy, &c. The addition of a little ſugar will render it more agreeable.

The doſe is an ordinary tea-cupful four or five times a-day.

## *Scorbutic Whey.*

This whey is made by boiling half a pint of the ſcorbutic juices in a quart of cow's milk. More benefit, however, is to be expected from eating the plants, than from their expreſſed juices.

The ſcorbutic plants are, bitter oranges, brooklime, garden ſcurvy-graſs, and water-creſſes.

A number of other wheys may be prepared nearly in the ſame manner, as orange whey, cream of tartar whey, &c. Theſe are cooling, pleaſant drinks in fevers, and may be rendered cordial, when neceſſary, by the addition of wine.

# WINES.

THE effects of wine are, to raiſe the pulſe, promote perſpiration, warm the habit, and exhilarate the ſpirits. The red wines, beſides theſe effects, have an aſtringent quality, by which they ſtrengthen the tone of the ſtomach and inteſtines, and by this means prove ſerviceable in reſtraining immoderate ſecretions.

The thin ſharp wines have a different tendency. They paſs off freely by the different emunctories, and gently open the body. The effects of the full-bodied wines are, however, much more durable than thoſe of the thinner.

All ſweet wines contain a glutinous ſubſtance, and do not paſs off freely. Hence, they will heat the body more than an equal quantity of any other wine, though it ſhould contain fully as much ſpirit.

From the obvious qualities of wine, it muſt appear to be an excellent cordial medicine. Indeed, it is worth all the reſt put together.

But to anſwer this character it muſt be found and good. No benefit is to be expected from the common trash that is often ſold by the name of wine, without poſſeſſing one drop of the juice of the grape. Perhaps, no medicine is more rarely obtained than genuine wine.

Wine is not only uſed as a medicine, but is alſo employed as a *menſtruum* for extracting the virtues of other medicinal ſubſtances; for which it is not ill-adapted, being a compound of water, inflammable ſpirit, and acid; by which means it is enabled to act upon vegetable and animal ſubſtances, and alſo to diſſolve ſome bodies of the metallic kind, ſo as to impregnate itſelf with their virtues, as ſteel, antimony, &c.

## *Anthelmintic Wine.*

Take of rhubarb, half an ounce; worm-ſeed, an ounce. Bruiſe them, and infuſe without heat in two pints of red port wine for a few days, then ſtrain off the wine.

As the ſtomachs of perſons afflicted with worms are always debilitated, red wine alone will often prove ſerviceable: it muſt however, have ſtill better effects when joined with bitter and purgative ingredients, as in the above form.

A glaſs of this wine may be taken twice or thrice a-day.

### *Antimonial Wine.*

Take a glaſs of antimony, reduced to a fine powder, half an ounce; Liſbon wine, eight ounces. Digeſt, without heat, for three or four days, now and then ſhaking the bottle; afterwards filter the wine through paper

The doſe of this wine varies according to the intention. As an alterative and diaphoretic, it may be taken from ten to fifty or ſixty drops. In a larger doſe it generally proves cathartic, or excites vomiting.

### *Bitter Wine.*

Take of gentian root, yellow rind of lemon-peel, freſh, each one ounce; long pepper, two drachms; mountain wine, two pints. Infuſe without heat for a week, and ſtrain out the wine for uſe.

In complaints ariſing from weakneſs of the ſtomach, or indigeſtion, a glaſs of this wine may be taken an hour before dinner and ſupper.

### *Ipecacuanha Wine.*

Take of ipecacuanha, in powder, one ounce; mountain wine, a pint. Infuſe for three or four days; then filter the tincture.

This is a ſafe vomit, and anſwers extremely well for ſuch perſons as cannot ſwallow the powder, or whoſe ſtomachs are too irritable to bear it.

The doſe is from one ounce to an ounce and a half.

### *Chalybeate, or Steel Wine.*

Take filings of iron, two ounces; cinnamon and mace, of each two drachms; Rheniſh wine, two pints. Infuſe for three or four weeks, frequently ſhaking the bottle; then paſs the wine through a filter.

In obſtructions of the *menſes*, this preparation of iron may be taken, in the doſe of half a wine-glaſs twice or thrice a-day.

The medicine would probably be as good if made with Liſbon wine, ſharpened with half an ounce of the cream of tartar, or a ſmall quantity of the vitriolic acid.

### *Stomach Wine.*

Take of Peruvian bark, groſsly powdered, an ounce; cardamom ſeeds, and orange peel, bruiſed, of each two drachms. Infuſe in a bottle of white port, or Liſbon wine, for five or ſix days; then ſtrain off the wine

This wine is not only of ſervice in debility of the ſtomach and inteſtines, but may alſo be taken as a preventative, by perſons liable to the intermittent fever, or who reſide in places where this diſeaſe prevails It will be of uſe, likewiſe, to thoſe who recover ſlowly after fevers of any kind, as it aſſiſts digeſtion, and helps to reſtore the tone and vigour of the ſyſtem.

A glaſs of it may be taken two or three times a-day.

# A GLOSSARY.

ALTHOUGH terms of art have been ſedulouſly avoided in the compoſition of this treatiſe, it is impoſſible entirely to baniſh technical phraſes when writing on medicine, a ſcience that has been leſs generally attended to by mankind, and continues, therefore, to be more infected with the jargon of the ſchools, than, perhaps, any other. Several perſons having expreſſed their opinion, that a Gloſſary would make this work more generally intelligible, the following conciſe explanation of the few terms of art that occur, has been added in compliance with their ſentiments, and to fulfil the original intention of this treatiſe, by rendering it intelligible and uſeful to all ranks and claſſes of mankind.

*Abdomen.* The belly.
*Abſorbents.* Veſſels that convey the nouriſhment from the inteſtines, and the ſecreted fluids from the various cavities into the maſs of blood.
*Acrimony.* Corroſive ſharpneſs.
*Acute.* A diſeaſe, the ſymptoms of which are violent, and tend to a ſpeedy termination, is called acute.
*Adult.* Of mature age.
*Aduſt.* Dry, warm.
*Antiſpaſmodic.* Whatever tends to prevent or remove ſpaſm.
*Aphthæ.* Small whitiſh ulcers appearing in the mouth.
*Aſtriction.* A tightening or leſſening.
*Atrahilarian.* An epithet commonly applied to people of a certain temperament, marked by a dark complexion, black hair, ſpare diet, &c. which the ancients ſuppoſed to ariſe from the *atra bilis*, or the black bile.

*Bile, or Gall.* A fluid which is ſecreted by the liver into the gall-bladder, and from thence paſſes into the inteſtines, in order to promote digeſtion.

*Cacochymie.* An unhealthy ſtate of the body.
*Caries.* A rottenneſs of the bone.
*Chyle.* A milky fluid ſeparated from the aliment in the inteſtines, and conveyed by the abſorbents into the blood to ſupply the waſte of the animal body.
*Chronic.* A diſeaſe whoſe progreſs is ſlow, in oppoſition to acute.
*Circulation.* The motion of the blood, which is driven by the heart through the arteries, and returns by the veins.
*Comatoſe.* Sleepy.
*Conglobate Gland.* A ſimple gland.
*Conglomerate.* A compound gland.
*Contagion.* Infectious matter.
*Cutis.* The ſkin.
*Cutaneous.* Of or belonging to the ſkin.
*Criſis.* A certain period in the progreſs of a diſeaſe, from whence a decided alteration either for the better or the worſe takes place.
*Critical.* Deciſive or important.

*Critical days.* The fourth, fifth, ſeventh, ninth, eleventh, thirteenth, fourteenth, ſeventeenth, and twenty-firſt, are, by ſome authors, denominated critical days, becauſe febrile complaints have been obſerved to take a deciſive change at theſe periods.

*Debility.* Weakneſs.
*Delirium.* A temporary diſorder of the mental faculties.
*Diaphragm.* A membrane ſeparating the cavity of the cheſt from that of the belly.
*Diuretic.* A medicine that promotes the ſecretion of urine.
*Draſtic* is applied to ſuch purgative medicines as are violent or harſh in their operation.

*Empyema.* A collection of purulent matter in the cavity of the breaſt.
*Endemic.* A diſeaſe peculiar to a certain diſtrict of country.
*Epidemic.* A diſeaſe generally infectious.
*Exacerbation.* The increaſe of any diſeaſe.

*Fæces.* Excrements.
*Fœtid.* Emitting an offenſive ſmell.
*Fœtus.* The child before birth, or when born before the proper period, is thus termed.
*Flatulent.* Producing wind.
*Fungus.* Proud fleſh.

*Gangrene.* Mortification.
*Gummata.* } Veneral excreſcences.
*Ganglia.* }
*Gymnaſtic.* Exerciſe taken with a view to preſerve or reſtore health.—The ancient phyſicians reckoned this an important branch of medicine.

*Hectic Fever.* A ſlow conſuming fever, generally attending a bad habit of body, or ſome incurable and deep-rooted diſeaſe.
*Hæmorrhoids.* The piles.
*Hæmorrhage.* Diſcharge of blood.
*Hypochondriaciſm.* Low ſpirits.
*Hypochondriac viſcera.* The liver, ſpleen, &c. ſo termed from their ſituation in the hypochondriac or upper and lateral parts of the belly.

*Ichor.* Thin bad matter.
*Impoſthume.* A collection of purulent matter.
*Inflammation.* A ſurcharge of blood, and an increaſed action of the veſſels, in any particular part of the body.

*Ligature.* Bandage.
*Lixivium.* Ley.

*Miliary Eruption.* Eruption of ſmall puſtules reſembling the ſeeds of millet.
*Morbific.* Cauſing diſeaſe, or diſeaſed.
*Mucus.* The matter diſcharged from the noſe, lungs, &c.
*Myſentery.* A double membrane which connects the inteſtines to the back bone.

*Nervous.* Irritable.
*Nauſea.* An inclination to vomit.
*Nodes.* Enlargement of the bones produced by the venereal diſeaſe.

*Pectoral.* Medicines adapted to cure diſeaſes of the breaſt.
*Pelvis.* The bones ſituated at the lower part of the trunk; thus named from their reſembling, in ſome meaſure, a baſon.
*Peritonæum.* A membrane lining the cavity of the belly and covering the inteſtines.
*Pericardium.* Membrane containing the heart.
*Perſpiration.* The matter diſcharged from the pores of the ſkin in form of vapour or ſweat.
*Phlogiſton* is here uſed to ſignify ſomewhat rendering the air unfit for the purpoſes of reſpiration.
*Phlegmatic.* Watery, relaxed.
*Plethoric.* Replete with blood.
*Polypus.* A diſeaſed excreſcence, or a ſubſtance formed of coagulable lymph, frequently found in the large blood-veſſels.
*Pus.* Matter contained in a bile.

*Regimen.* Regulation of diet.
*Rectum.* The ſtraight gut, in which the fœces are contained.
*Reſpiration.* The act of breathing.

*Saliva.* The fluids ſecreted by the glands of the mouth.
*Sanies.* A thin bad matter, diſcharged from an ill-conditioned ſore.
*Schirrous.* A ſtate of diſeaſed hardneſs.
*Slough.* A part ſeparated and thrown off by ſuppuration.
*Spaſm.* A diſeaſed contraction.
*Spine.* The back bone.
*Styptic.* A medicine for ſtopping the diſcharge of blood.
*Syncope.* A fainting-fit attended with a complete abolition of ſenſation and thought.

*Tabes.* A ſpecies of conſumption.
*Temperament.* A peculiar habit of body, of which there are generally reckoned four, viz. the ſanguine, the bilious, the melancholic, and the phlegmatic.

*Vertigo.* Giddineſs.

*Ulcer.* An ill-conditioned ſore.
*Ureters.* Two long and ſmall canals, which conveys the urine from the kidnies to the bladder.
*Urethra.* The canal which convey the urine from the bladder.

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*ERRATA.*

In page 183, for *jalop*, read *jalap*.
303, for *baſilicon*, read *baſilicum*.
In the note, page 320, for *Electuary*, read *Electricity*.
330, for *recompoſe*, read *decompoſe*.
333, for *greater* read *great*.

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